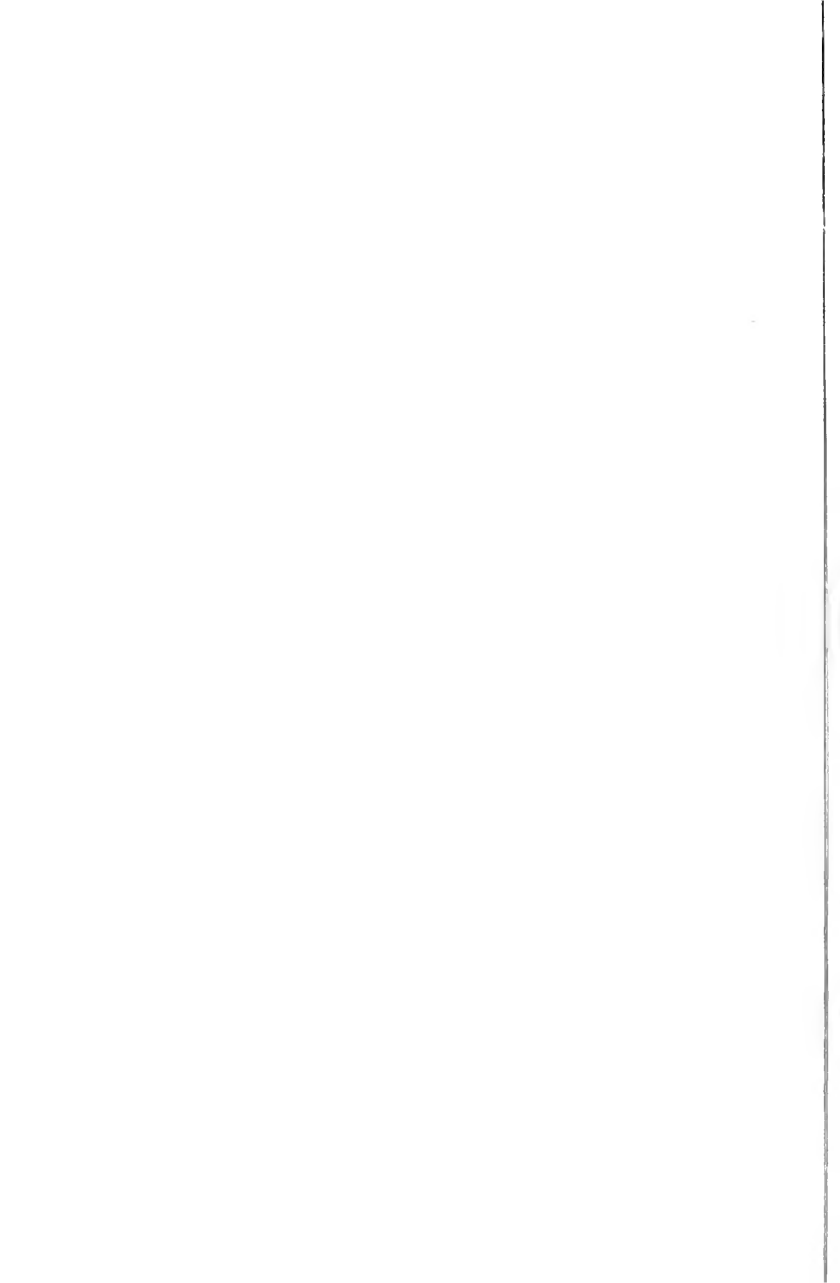


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FIG. 1.

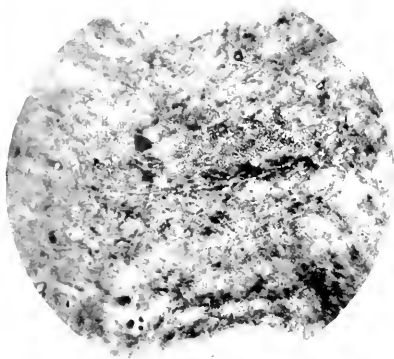


FIG. 2.



FIG. 3.

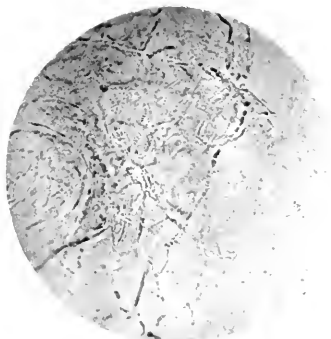


FIG. 4.

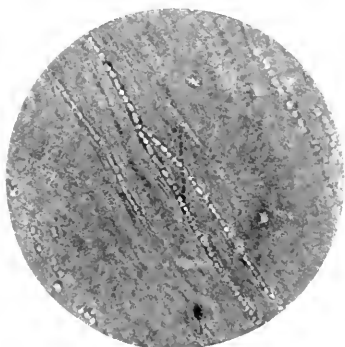


FIG. 5.

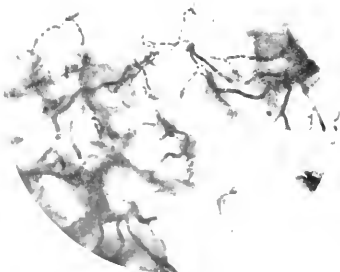


FIG. 6.



Illustrating Dr. White's Article on Ringworm Fungi

(For explanation of plates, see page 16.)

JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES.

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NO. I.

Original Communications.

RINGWORM AS IT EXISTS IN BOSTON.

BY CHARLES J. WHITE, M.D.,

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MY studies upon the subject of ringworm in Boston began in October, 1895, and were continued until July, 1898. The subject has now lost much of its freshness, but no American—so far as I know—has published the results of recent individual work upon this disease, which for two or three years following the appearance of Sabouraud's masterly treatise took almost first place in the interest of dermatologists.

Several times I have been tempted to publish the results of my investigations but each time have postponed such action on account of the poor success of my work. There is, nevertheless, a short résumé of my first year's conclusions in the "Transactions of the Third International Dermatological Congress," page 543. Several of these deductions have had to be modified, however, on account of subsequent observations.

My remarks will be confined closely to the results of personal work on ringworm as it presents itself among the poor of Boston, and I shall not try to contradict the conclusions of investigators of other countries as many previous writers have done. Ringworm is caused by a vegetable parasite—a plant presenting manifold differences as it appears in various lands. This is the theory upon which I have based my work, and I now hope to demonstrate the peculiarities of the ringworm plants as they occur in Boston.

The method of procedure adopted was as follows: an observation of the case clinically; an examination of the hair or the scale microscopically; a planting of the suspected tissues; and in many cases a microscopical examination of the culture. All hairs and scales were examined at first unstained, and later, in some instances, stained specimens were prepared, but I do not believe in the latter method, for by this artificial process only the living spores are colored and the dead ones remain in obscurity. The result is a picture far from the true one—a picture which does not present the plant as it actually exists. Several methods of staining were tried but that recommended by Adamson of London was finally adopted as the most satisfactory.

After experimenting with many different artificial media for the cultivation of the plant I adopted the "milieu-d'épreuve" of Sabouraud as the one soil most favorable to the local varieties of ringworm, and although many variations were made in the proportions of the ingredients, nevertheless, in the end I returned to the original formula and used it during the greater part of my work. Success seldom came to me in my cultures, for out of nearly three hundred inoculations less than fifteen per cent. produced favorable results. This percentage refers to distinct cases, for when once an individual plant showed itself capable of artificial reproduction it was almost always possible to obtain sub-cultures *ad libitum*. These sub-cultures almost always retained the most minute peculiarities of the parent stock and to my mind afforded one of the prettiest demonstrations of the plurality of the ringworm fungi. The maltose of several different manufacturers was tried during the three years, and I found that the resulting cultures varied only slightly—the growth of the microsporon *Audouini* being white when sown on the maltose of Lehn and Fink of New York and buff when planted on that of Grübler of Leipsig. This was the most striking variation noted, and one can see that this was not as important as those found by European investigators in their studies.

The temperature at which the cultures were left to grow was found to influence their characteristics to a considerable extent and after many trials 30° centigrade was decided upon as the one best fitted to produce a rapid and luxuriant growth. As to the reaction of the medium it was found that the more acid it was the more contaminations flourished, while with too much alkali present the vigor of the ringworm was threatened. Therefore, a slightly alkaline reaction was found to be the most favorable.

During my second-year's work I discovered, to my temporary disadvantage, an excellent means of checking further growth in a culture and also of rendering hairs and scales infected with ringworm sterile.

It was my custom to keep all my specimens in small paper envelopes shut up in a compartment containing, approximately, four cubic feet of air. For twenty-four hours about fifty of my most interesting specimens were accidentally exposed to the vapor of possibly three cubic centimeters of formaldehyd soaking in absorbent cotton. This small amount of formaldehyd was sufficient to kill all the plants—among which were many of the large spored types which I was specially anxious to reproduce on an artificial medium.

One fact was signally impressed upon me from my microscopical examinations, and that was the frequent failure to discover either spores or mycelium in many cases where the diagnosis of ringworm was made clinically. This discrepancy was especially marked in trichophytosis of the bearded face.

From October 1, 1895, to May 1, 1898, 8383 new patients—purely dermatological—were treated in the skin-clinic of the Massachusetts General Hospital. Of these 8383 cases 279 were diagnosticated as ringworm—about three per cent. Considered from the standpoint of the seasons one might say that ringworm prevailed in Boston in practically even proportions throughout the year. After considering the subject from the four points of view mentioned above, *i.e.*, clinical, microscopical, cultural, and morphological, I became convinced that ringworm should be divided into two great heads: the microspora and the megalospora. Whether the microspora and the megalospora are varieties of the same plant or are distinct species I have not been able to satisfy myself, but their characteristics are sufficiently marked to warrant their consideration under different headings.

THE MICROSPORON AUDOUINI.

Of the 279 cases of ringworm studied with positive results, 139 were caused by the microsporon Audouini, 127 by the megalospora, and 13 remained in doubt. Therefore, leaving out the 13 undetermined cases we can say that probably 52 per cent. of ringworm in Boston is due to the microsporon Audouini. The plant was found upon the scalp in 120 cases; upon the scalp and neck in 3; in the beard in 1 case; upon the face in 5 cases; upon the neck in 4; upon the trunk in 3; upon the legs in 2; and upon the arms in 1 case. The plant was isolated from 80 males and from 59 females. From the above figures we see that the favorite seat of the parasite in the majority of dispensary cases (88 per cent.) is the scalp, and from the following table we must note that age can play an important rôle in the diagnosis of ringworm of the scalp—in other words, a ringworm of the scalp in a person over thirteen years of age is in all probability caused by a megalosporon.

The ages at which the small-spored ringworm occurred upon the scalp are summarized in the subjoined table:

Four cases appeared during the first year of life.
Seven between the ages of one and two years.
Nine between the ages of two and three years.
Twenty-seven between the ages of three and four years.
Fourteen between the ages of four and five years.
Fourteen between the ages of five and six years.
Fifteen between the ages of six and seven years.
Sixteen between the ages of seven and eight years.
Ten between the ages of eight and nine years.
Six between the ages of nine and ten years.
Six between the ages of ten and eleven years.
One between the ages of eleven and twelve years, and
Two between the ages of twelve and thirteen years.

It is interesting to note that there were examples of *microsporon Audouini* where the age exceeded thirteen, but those were cases where the smooth skin was affected.

Upon the scalp the *microsporon Audouini* produces a clinical picture which I think can be usually recognized by an observer who has carefully studied this branch of dermatology. Most commonly we see an irregularly rounded area due to a loss of hair. This alopecia is more frequent upon the sides and the back of the scalp than upon the top or the front, and varies in size from one-half inch in diameter to the not uncommon patches two or three inches in width. On careful examination we may discover elsewhere upon the scalp an area no larger than a split pea where we find a heaping up of scales about one or two hairs. These scales are not ash-colored as in the older lesions, but appear rather yellowish-red. This, of course, is the incipient stage of the disease, but it is very rare for a patient to present himself before the bald spot has attained a larger size. In other cases there may be many spots upon the scalp and then we do not find them so circular—they assume rather an irregular outline—one diameter being longer than the other. As time goes on these spots coalesce and we have the large, irregular areas covering sometimes one-half of the scalp; but such a picture is a great rarity in Boston. The only subjective symptom caused by the *microsporon Audouini* is a slight pruritus, and in the majority of cases even this is absent.

On examining these bald spots one finds that the natural appearance of the skin has disappeared and in its place one can see a layer of fine,

dirty-white, ashen-gray scales. As a rule, the area is not totally bald, for here and there one sees a long, apparently healthy hair, and on closer inspection many whitish-gray stumps of broken hairs pushing their way up through the débris of ashy scales. These stumps yield to very slight traction, and an examination of one of them will show a hair about one-eighth to one-quarter of an inch in its aerial length and surrounded by a grayish collarette almost to its root. This is the usual condition, but it is not very uncommon to find the scaly envelope missing, due, perhaps, to its remaining in the hair-follicle at the time of the evulsion of the hair.

Not infrequently in this variety of ringworm one sees the parasitic process extending to contiguous parts of the body and 12 out of the 123 cases recorded exhibited such association upon the smooth skin of the neck, face, or forehead. We never find any lesion resembling the circinate type of ringworm in these cases, but one or several homogenous patches of soft, whitish furfuration resting lightly on the skin. There is usually no halo of erythema or other signs of disturbance, the process is very benign, and all evidences of the trouble disappear within a week if proper treatment be employed.

There were several striking exceptions to these few simple rules of diagnosis which have just been laid down, and if it were not for the fact that the exceptions were proved to be authentic by the microscope and by culture, it would be difficult to credit them. Of such instances the first was that of a little girl of eight, who presented several circular patches upon her leg. The scales covering these lesions did not resemble the delicate whitish ones described in *microsporon Audouini* of the face and scalp, but were less numerous, coarser, and yellower. The process was slightly more intense and accompanied by some thickening of the underlying skin. The second, third, fourth, fifth, sixth, seventh, and eighth exceptions presented lesions of the same type as the above and may be mentioned briefly as follows: a little girl of four, with several circinate patches on the leg; a woman of thirty-two, with similar lesions on the arm and on the leg, presumably infected by her little boy of four, who had typical *microsporon Audouini* in the hairs of his scalp; a woman of thirty-one, with lesions on the neck; a man of twenty-four, with semi-lunar patches on the neck; two men, one of twenty-four and the other of forty-five, with circinate areas upon the bearded face and neck; and lastly, a woman of twenty-four, with several patches on the neck.

Under the microscope the *microsporon Audouini* presents two very constant pictures depending upon its seat of growth. In the hair we find a mass of small, round, glistening spores varying from two to three micromillimeters in diameter and agglomerated in such a way as to

form a veritable mosaic. This is the impression one receives in the vast majority of cases. The spores are so closely matted that we see no mycelium, and never in the megalospora of ringworm, in the achlorion Schönleinii or in the microsporon furfur do we find such uniformity in the size and in the shape of the spores. By careful focusing of the microscope, especially in stained specimens, we find that these spores surround the hair, forming the white collarette described above. Once in many examinations one finds a hair where the invasion of the microsporon is presumably very recent, and then a very different picture is seen. Here spores are infrequent, but we find long, glistening filaments dividing dichotomously or anastomosing with other threads running with the long axis of the hair. One seldom sees this mycelium actually breaking up into spores, but here and there one can often observe along these parent stems small groups of round, glistening spores quite similar to those ordinarily seen in hairs infected with microsporon Andouini.

In scales coming from the scalp or from the smooth skin we never find such a luxury of growth as in the hair—in fact, I think one can say that the microsporon Andouini does not thrive except upon the hair of young children. In scales we have a picture like the last one described in the hair. There are the same long, glistening filaments, with, perhaps, less inclination to divide and to anastomose, and also the same paucity of spores. As a rule, one must examine several scales before any evidence of the parasite is found.

The inoculation of the infected material was made by placing small bits of the suspected tissue upon the medium, and, although the number of successful plantings was disappointingly small, it was gratifying to find that there was never any contamination from moulds or bacteria. The culture once obtained was sure to be a pure one.

From two to five days after the inoculation a small white tuft would form about the point where the tissue was planted. This would consist of delicate, snow-white, aerial hyphæ, and it would continue to enlarge for several days and then would flatten down slightly. This first active stage of growth would be followed by one less luxuriant, and the hyphæ would not grow so much into the air but would hug the medium closely. Then would succeed a second period of activity and the hyphæ would grow denser and more aerial. Then another abatement of growth, and so the culture would constantly extend in an ever-larger circle and thus would be formed the alternate rings which appear in the photographs and which form the most distinctive characteristic of the cultures of microsporon Andouini (Fig. 10). I have spoken of the whiteness of the growth, but in one series where a new maltose was tried the same con-

centric circles were present but the hyphæ were brown. Another slight variation in this type of culture is the presence of radiating sulci which diverge from the central tuft and intersect the outlying circles. This was not an uncommon occurrence.

In Boston the growth of the microsporon is more rapid than that of the megalospora. At the end of seven days, in the case of the former, we should expect the diameter of the culture to vary from 1.5 cm. to 2 cm., while in the latter so large a diameter would seldom be seen in so short a period.

There were five anomalous cultures isolated from specimens of microsporon Audouinii. The first plant (Fig. 12) was evidently closely allied to the usual type, for the growth consisted of the white, aerial, fluffy hyphæ described above, but the central tuft was displaced by an area perhaps 1.5 cm. in diameter, much denser and whiter than the surrounding growth, and the usual concentric circles and radiating sulci were totally lacking. The second important variation exhibited a growth whose vitality seemed to be greatly diminished. The usual abundant growth of the hyphæ occurred about the inoculated tissue and then all further life apparently ceased. This phenomenon was observed in three cases—two from the scalp and one from the neck. The third of the rare forms of culture was derived from the beard of a man of forty-five (Fig. 13). The growth is composed fundamentally of very delicate radiating hyphæ, lying in such a transparent layer that they produce no color, but assume that of the medium. Superimposed is a homogeneous, downy, white layer, which is not produced as quickly as that of the hyphæ, but increases peripherally, leaving always a free margin of the colorless hyphæ. The fourth anomaly (Fig. 14) was extremely interesting and one wonders if the microsporon causing this culture can be related to the Italian plants which produce the violet cultures described by Mibelli. This culture was derived from scales from the scalp of a child of four. The central portion consists of a rosette-like elevation so dark that one would hesitate to describe its color. Surrounding this central zone is a circle composed of delicate, radiating hyphæ, of a red-violet tint, and outside of all a third belt of pale lavender. The growth is distinctly small and never attained a diameter of more than 1.5 cm.

Thus we have seen that although there are exceptions in clinical, microscopical, and cultural features there is a plant which produces in children under thirteen years of age a loss of hair from a round area of the scalp. The scalp appears dirty and is covered with short hairs. Under the microscope this plant appears as a mosaic of glistening, round spores, two to three micromillimeters in diameter, encircling the

hair, and when sown upon a suitable soil, produces a white culture composed of a slightly elevated central tuft, surrounded by concentric circles of radiating hyphæ. This plant is the *microsporon Audouini*, the existence of which so many Continental writers have denied, but which causes in Boston over fifty per cent. of all cases of ringworm and over ninety per cent. of ringworm of the scalp.

I think that one of the most interesting features of this plant from an international point of view is the comparative benignity exhibited here in Boston. In Paris it is the custom to epilate completely the child's head and then to apply decidedly active medication. In England, the treatment is usually not so severe, but, nevertheless, much more drastic than in Boston. Here the mother of the child is told to remove all the short hairs visible in or near the bald area, to rub in gently the ointment prescribed, paying especial attention to the area immediately surrounding the diseased spot, and, finally, to wash the whole head of the child every morning with Castile soap and warm water. The ointment always ordered at the Massachusetts General Hospital is compounded as follows: R Sulph. flor. 5i, acid carbol. 5i, naphthol 5ss, adipis 5i. One can see that such methods are far from severe, and yet in Boston it is rare to have a patient return to the hospital after six months of treatment. It cannot be stated positively that the disease has been eradicated in all cases, for a physician has no absolute control over out-patients, and they come and go much as they please. Nevertheless, inferring from experience in other diseases, it can be affirmed that out-patients are willing to do their share if they see that a reasonable progress is being made.

THE MEGALOSPORA.

In Boston, according to the statistics of three years, about forty-seven per cent. of all cases of ringworm are due to the large-spored plant. Here we find immediately many striking differences from the parasite we have been studying. With the *microsporon Audouini* the age of the patient was very limited, and we noted that four was the minimum and thirteen the maximum. With the *megalospora*, however, we find on the one hand fourteen days and on the other fifty-three years as the extremes of age at which the plant was isolated. The intervening cases were divided as follows: Under one year there were three cases; during the first decade, twenty-one cases; during the second, fifteen; during the third, forty-three; during the fourth, thirty; during the fifth, eleven; and during the sixth, one.

The question of sex played a more important rôle in the *megalospora*

FIG. 7.



FIG. 8.

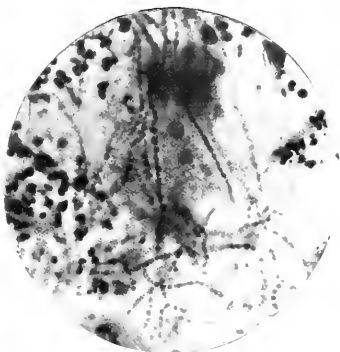


FIG. 9.

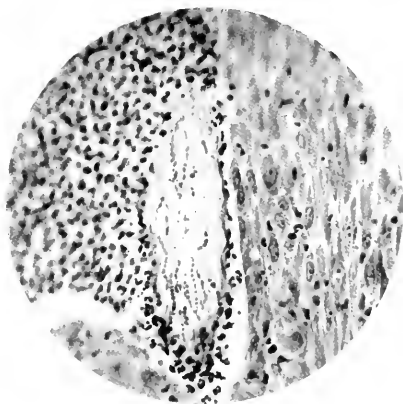


FIG. 10.

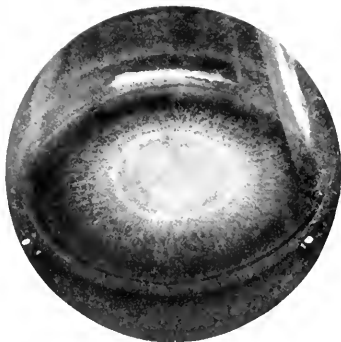
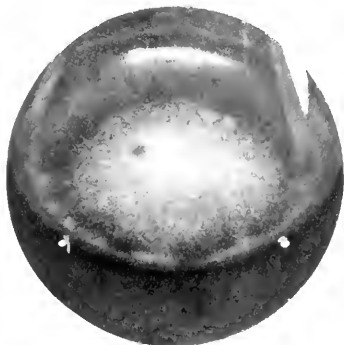
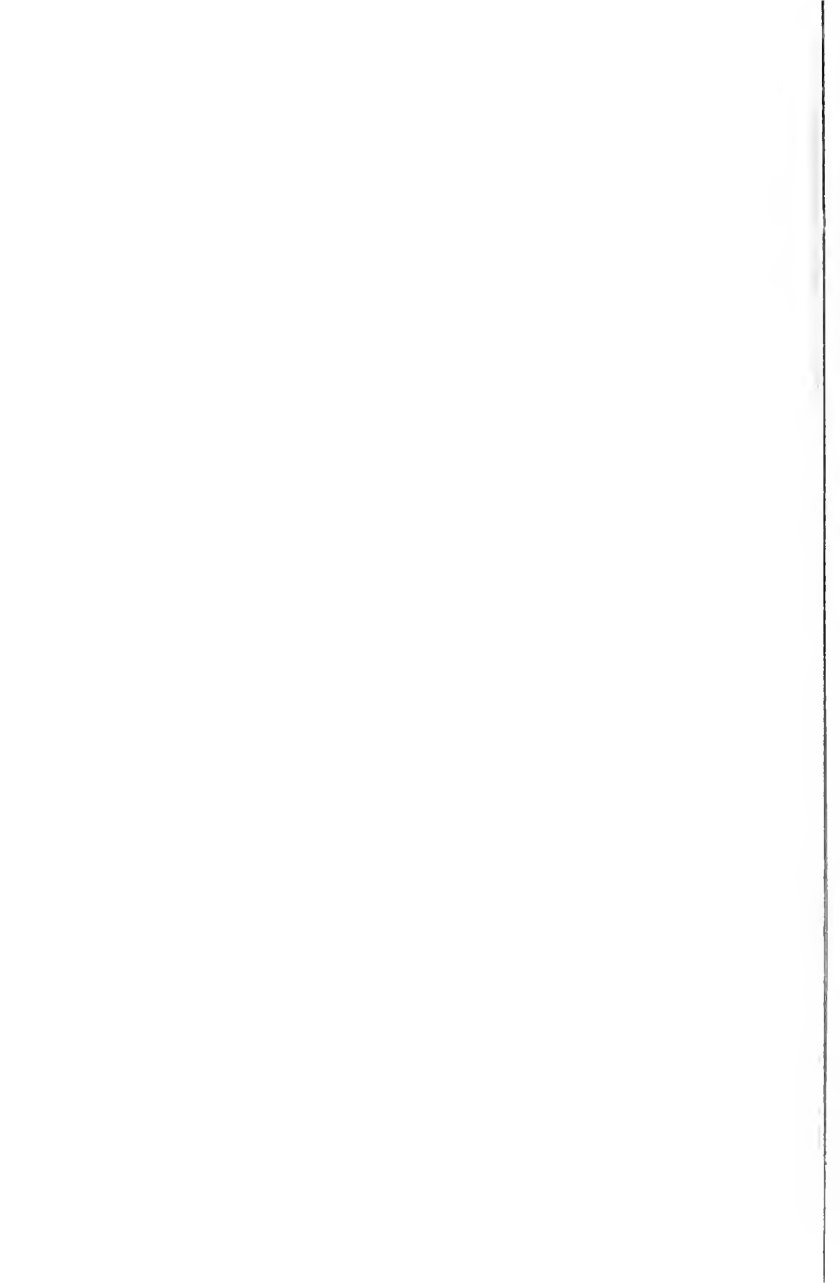


FIG. 11.



FIG. 12.





than in the microspora for we find that ninety-three males were attacked to thirty-four females. The great preponderance of the male sex was due to the many cases of ringworm of the beard.

The study of the megalospora leads us to divide them into two principal classes—the endothrix and the ectothrix, or, perhaps more correctly, into the endothrix and the endo-ectothrix. This rather categorical classification does not depend upon microscopic examination alone, but upon clinical and cultural grounds as well. As one can see by what follows, one is usually safe in asserting that a ringworm of the beard is due to an ectothrix, and that when inoculated on Sabouraud's milieu-d'épreuve it will produce a powdery or granular culture; and that a ringworm of the glabrous skin or of the scalp (the large-spored variety) is caused by an endothrix and that with cultivation a crateriform culture will result. I must confess that from a cultural standpoint these statements are based upon small data, for positive inoculations of the megalospora were disappointingly few. Nevertheless, all successful plantings sustain me in the above assertions and none contradict what I have said.

Ringworm of the scalp due to the large-spored plant is a comparatively rare disease in Boston. There were only eight cases found during my investigations, which means that it forms only six per cent. of all ringworm and a little more than three per cent. of ringworm of the scalp. The appearance of the scalp is very different from that of a case caused by the microsporon Audouini. The bald area is seldom, if ever, round, but assumes an irregular or oval shape. There are often several affected areas and the natural progress of the disease tends to join them together. We do not find the spot covered with ashen-gray scales, but are struck with the apparently excited condition of the scalp—it is red and looks eczematous. The absence of short, ash-colored hair-stumps is patent to the examiner, and in their place he notes the persistence of a few rather swollen, long hairs in the midst of the unusual bald area before him. The intensity of the process is far greater than that ever observed in microsporon of the scalp. In one instance the whole scalp was affected, the disease had persisted for seven or eight years, and only a few score hairs were left upon the head. The scalp was severely involved and looked from a distance as though the child was suffering from favus, but palpation quickly dispelled the illusion, for there was absolutely no atrophy present. In the eight cases under discussion the disease was limited to young children between the ages of nine months and fourteen years, but this does not exclude the possibility of the plant occurring in scalps of adults, for several years ago Dr. J. T. Bowen of Boston was consulted by a well-known actress, of forty or more, for a

condition very similar to that of the little girl described above. I examined these specimens last year ¹⁹⁰⁷ long hairs to be full of the typical endothrix spores.

Among the eight cases of scalp ringworm due to the megalospora was one of a small kerion in a little girl of seven. This was very properly found to be due to a megalosporon ectothrix, and as it naturally presented totally different conditions it should not be considered under the present heading.

When examined under the microscope the hairs present, in varying abundance, lines of spores running parallel to the long axis. This parallelism is most evident when the spores are few in number. When, on the other hand, they are very numerous and completely occupy the interior of the hair, then it is often difficult to trace the continuity of the spores and mycelium. The mycelium divides dichotomously and the spores intersect one another at different angles. The spores are usually quadrangular, with rounded corners, or approach a circular shape, and they vary considerably in size. Five to seven micromillimeters is usually given as their average length. In all cases examined the mycelium proved capable of resisting disintegration when subjected to a boiling temperature for a few moments, thus representing the subdivision of trichophyton endothrix "à mycélium résistant" described by Sabouraud.

The treatment of these cases demands much more time and far severer measures than those sufficient to destroy the life of the microsporon Andouini. Epilation is a necessity, and such drugs as mercury, chrysarobin, pyrogallie acid, and formaldehyd rather than sulphur and naphthol are indicated.

Ringworm of the glabrous skin forms the second clinical type caused by the trichophyton endothrix. There were sixty-four cases studied, and the disease was observed upon the smooth face, the neck, upper and lower extremities, and the trunk. This form constitutes, as a rule, the well-known tinea circinata or typical ring which even the laity can diagnosticate. There is really no age at which one is exempt from this type. The youngest case examined was upon the nose and the cheek of a baby two weeks of age, whose mother had a similar ring upon the breast, and whose father was also affected. The oldest was upon the forehead of a woman of fifty-three.

It was stated just above that the trichophyton endothrix caused the typical ring-shaped lesions of trichophytosis. This is quite true, but, nevertheless, in a certain proportion of the cases no perfect circle can be discerned and we have lesions of indefinite shape, varying from mere scaling areas to crescents, and half, and three-quarter circles. Of

course, neighboring small lesions may coalesce as they increase in size and produce gyrate and serpiginous forms, but, after all, the circle or some segment of the circle is the typical lesion when the disease has reached the age of several weeks and has remained undisturbed. The disease begins as a small papule, which frequently becomes vesicular, and finally is surmounted by a rather greasy, yellow scale, very unlike the dry, ashen-gray scale of the microsporon. In a few days the central papule subsides somewhat, but increases in diameter, and this process continues—the central point gradually reaching the normal level and the circumference ever enlarging and always, when undisturbed, retaining its original elements of vesicles or scale-capped papules. As a rule the central portion of the lesion never becomes quite normal in appearance, but always retains a slightly eczematous look. Very often in long-continued cases the circular band of active inflammation may be one-half inch in width and constitute a deeply infiltrated zone of diseased skin. Such conditions usually occur upon exposed surfaces like the hand, where external irritation is hard to avoid, or upon the leg, where cutaneous affections always assume a severer and more chronic type. It sometimes happens that the central portion becomes reinfected, and cases have been recorded where such a phenomenon has recurred several times. Thus, concentric circles are formed. A second reinfection has been the greatest number recorded here.

In cases where the ring type is not present we find an area of indefinite shape or more often several areas. The skin assumes a pinkish hue and is covered, although not quite to its free border, with yellowish-white, rather moist scales. These numerous, atypical lesions appear not infrequently upon the neck, but other parts of the body are not exempt from this rarer form.

For microscopical investigation there are two sources from which we can derive our material—the hair and the scale. The former is necessary to decide whether the plant is an endothrix or an ectothrix, and the latter proves to be the best soil for the observation of the plant. In removing our material for study we must be careful to find a hair of the lanugo type, for I have never yet found the other type of hair infected in this variety of ringworm. Such exclusion means, in the majority of cases, that we must give up the aid derived from the examination of the hair in determining the variety of megalosporon, and must rely upon the culture, and in all my cases the artificial growth proved that we had to deal with the megalosporon endothrix.

The description of this plant has already been given under the heading of megalosporon of the scalp. The spores and mycelium, as they appear in the lanugo-like hairs from the body, present no variations

from their counterparts isolated from the scalp, but when we examine scales from a case of *tinea circinata* we find certain minor characteristics worthy of record. We are first struck by the fact that we must look for a considerable time before we find any elements or, perhaps, that our search must be abandoned altogether, although, clinically, there could have been no error in diagnosis. In other words, the growth is never abundant as in cases of *microsporon*. The second point that attracts our attention is that, as a rule, we are more apt to find the plant on the edge of the scale rather than toward its center. The third difference is that the mycelium plays a more conspicuous part in the picture than the spores. We find the mycelium branching out in slender threads with here and there spore formation. The spores exactly resemble those already described. The mycelium has always resisted heat when a boiling temperature has been applied and it is a great pleasure to record that the *trichophyton endothrix* "à mycélium résistant" has always produced the crateriform culture observed in Sabouraud's cases. The "mycélium fragile" and the acuminate culture were never found.

The Cultures.—A few days after the inoculation of a scale or a small piece of hair the inevitable central tuft appears—white or whitish-brown in color. This soon sinks down and as time progresses we find a growth much resembling wheat-flour, steadily pressing outward. In the center the original tuft has become a hollow, and about it a round or an irregular-shaped wall of the same material is thrown up, which in its turn sinks, always giving way to a wall of larger circumference. In this manner a veritable crater is produced. When the culture is at the acme of its development we find one or two pictures. First (Fig. 15), an irregular-shaped wall about a central hollow, from which radiate deep sulci or crevices, and outside of all a rather fluffy area: or second (Fig. 16), a roundish crater, lower than the first, with superficial furrows branching from it, and surrounding all a homogeneous, firm growth. The latter type is evidently a less vigorous one and assumes a rather buff color. Only one such culture was grown and I regret that a secondary mould found access to the flask, thus obscuring the original picture.

The treatment of *tinea circinata* is not a serious problem unless the patient has allowed the disease to attain the large size which is usually accompanied by subcutaneous complications. An ointment of white precipitate of mercury or the one recommended above for *microsporon* Audouini of the scalp is sufficient in the mild cases to destroy the disease in a few weeks. In the severer lesions we may use the ointments just mentioned or may resort to chrysarobin or corrosive sublimate, but

whichever we employ, the thorough eradication of the spores is often not accomplished for several months.

The last division of the subject to be considered is the type due to the megalosporon ectothrix. We must again subdivide this class into the superficial, scaling variety and the deep, suppurating form. In this series of observations, extending over almost three years, the megalosporon ectothrix was noted fifty-six times. In fifty-five cases the plant was isolated from the bearded face and in one from the scalp of a little boy of nine. Thus the male sex played the entire rôle in the distribution of the parasite, and the ages from eighteen to forty proved most susceptible. Sabouraud believes that this plant is chiefly of animal origin, and, therefore, every patient in this list was questioned as to his occupation. As a rule the men afflicted with the mild form accused barbers of infecting their faces, but in all the deep, suppurating cases it was found that the men were employed as grooms or stable-boys, or were connected with abattoirs.

The mild type, due to the megalosporon ectothrix, forms by far the greater portion of the cases and presents a very constant appearance. The disease begins as a small, superficially scaling area in the bearded face. There is, in fact, no other abnormal sign at first. The scales are ashen-gray and simulate closely those produced by the microsporon Audouini. As the disturbance progresses, a wider area is covered or new foci appear and very small pustules may or may not be noted. These pustules always surmount a hair-follicle and from their center one can often observe a lanugo-like hair sprouting. This is a fortunate discovery for the investigator, for he must depend upon such a hair if he would learn by the microscope the type of megalosporon with which he has to deal. The favorite seats for the plant, I think, are over the masseter muscle and about the chin. If untreated, the disease may cover the entire bearded face, but no such widespread example was observed. As time advances the hair tends to fall and the area assumes a dull-red hue and projects slightly above the level of the surrounding normal skin, showing that the process has involved deeper tissues. If no applications have been made, the usual dirty-white scales and the minute pustules will surmount the rather characteristic area just described.

The deeper, graver type of infection is, fortunately, a rare occurrence with us. We may begin the description of it where we have just ended and start with a collection of pustules about the mouths of the hair-follicles. This constitutes the true sycosis or the "perifolliculite agminée" of the French. From this degree of severity there are intermediate stages exhibited by the disease, until, finally, we may reach, in very exceptional cases, a condition where the whole bearded face and

neck become a veritable mass of tumors, increasing in size from a pigeon's egg to a hen's egg, from which pus and blood are oozing in great abundance. Such a case was brought for diagnosis to the skin-room of the Massachusetts General Hospital last winter and was immediately sent into the surgical wards for operation. The case, therefore, passed out of our control, but was thoroughly investigated by Dr. Frost, who has kindly allowed me to have the microscopical sections photographed and published here (Figs. 7, 8, 9). It was a very beautiful demonstration of the correctness of Sabouraud's teaching, for the cultures from unbroken pustules proved sterile of the usual pus-producing bacteria. He has always claimed that the megalosporon ectothrix was itself pyogenic and such has proved to be the case in Boston. Unfortunately, no cultures of the ringworm fungus could be obtained in this case—repeated inoculations producing a beautiful, stellate, white mould.

Kerion of the scalp, which is, apparently, not an unusual manifestation in Paris appeared only once in Boston. The incipient stages, I infer, consist in the usual furfuration and small pustulation common to the megalosporon ectothrix, but if untreated or, perhaps, maltreated, the disease advances to the unmistakable lesion known as kerion. We see a plateau of dark-red, boggy tissue, dotted with many pustules, from some of which coarse stumps of hair protrude or, perhaps, the pustules have broken and we find pus welling up from the dilated mouths of follicles. If we are not successful in finding a lanugo-like hair in this mass, we must depend upon whatever scales are present or upon a stained specimen of pus to reveal to us the megalosporon ectothrix, which, we are safe to affirm, is the cause of this pathological condition.

When we place a lanugo-like hair under the microscope, we find lines of spores and mycelium surrounding it. Perhaps, by careful focusing, we shall note that the mycelium often dips down into the substance of the hair, for this type of ringworm does not always closely remain ectothrix. In Boston it would be impossible to differentiate always the spores of the megalosporon ectothrix from those of the megalosporon endothrix except by their position relative to the hair. Therefore, the description given when considering the megalosporon endothrix will suffice for the spores and mycelium of the megalosporon ectothrix. Briefly recapitulated, the spores are quadrangular, glistening bodies, some with corners rounded, some with corners square, varying in length from five to seven micromillimeters and in width from four to five micromillimeters. At times one may find a spore which approaches a round or an oval contour, but such an experience is more frequently met with in examining the spores of the endothrix variety. The mycelium needs no detailed mention. It branches dichotomously and

forms many apparent anastomoses with its neighbors. As in the scales of megalosporon endothrix and microsporon Audouini, so in those of megalosporon ectothrix the mycelium and the spores are much less vigorous than in the hair. In this connection one point must be emphasized especially and that is that time and again the clinician will make a diagnosis of ringworm of the beard which cannot be corroborated by the microscopist. This does not mean that the diagnostician was in error, but it impresses upon us the fact that it is very difficult to find the spores and mycelium in scales alone, and we know how seldom it is that a lanugo-like hair presents itself in these cases.

The cultures of the ectothrix type proved interesting, but it was disappointing that only two varieties were isolated. Perhaps these are all that exist here, but so many inoculations proved futile that we cannot stifle the feeling that many more developments would result from future study.

The first type (Fig. 17) begins its life with the customary central tuft and in its finished state the culture presents about this tuft a few slight depressions in the buff-colored, granular mass which has spread out in a solid circle from the inoculated tissue. The distinctive and, one might say, pathognomonic sign of this variety of ectothrix culture is its granular, powdery character. The second type (Fig. 18) is not so vigorous. From the central tuft ramify delicate hyphæ which, on maturing, dry up into a fine, delicate, buff-colored, slightly granular, slightly stellate mass which conceals, almost to the periphery, the original underlying hyphæ. The growth does not always produce a perfect circle—one side evidently not being as fertile as the other. This latter variety is apt to appear in beard cases where pus is present, the former where scales form the chief symptom. From the photographs of these cultures we see that the ordinary luxuriant, white, stellate, ectothrix cultures found in Paris and in London were not reproduced here, but figure 122 in Sabouraud's atlas of his "*Trichophyties Humaines*," depicts a less common ectothrix variety which suggests strongly the second type of ectothrix which I have described.

The treatment of the severe, suppurating lesions of megalosporon ectothrix consists of thorough surgical measures, and this means a rather speedy restoration to health, but the mild pustular and granular forms constitute very often the most obstinate disease which the dermatologist is called upon to treat. I know of one case where the disease has been observed at intervals, despite good treatment, during a period of twenty-seven years. In these troublesome cases we may employ drugs from the mildest to the most exciting character, and we may, perhaps, keep the disease in subjection, but the moment we relax our care

the scales and pustules begin to reappear, so that a scarification and curetting of the entire area, with subsequent skin-graft, would seem to be measures to which we must resort in future when these cases begin to exhibit their obstinacy. When we are to employ medical treatment we must first insist upon epilation, and then upon the application of ointments containing one or several of many drugs, the most important of which are sulphur, naphthol, carbolic acid, mercury in many forms, pyrogallie acid, chrysarobin, salicylic acid, ichthyol, or upon external applications of formalin or tincture of iodine. In cases where there is much pus or where the lesions have been greatly overstimulated we must begin our treatment with a mild, antiseptic wash and a soothing, cleansing ointment, and here very good results can be obtained by the employment of black wash (hydrarg. chlorid. mit. 3ss, aq. calcis ʒviii, used as an evaporating lotion) and ung. boracic.

During my investigation hairs from the horse, the dog, the cat, and the rabbit were examined and planted upon the usual soil. With the horse and the rabbit the work was unsuccessful, but the microsporon Audouini was found and successfully cultivated from the hairs of the cat and the dog. There seemed to be no microscopical or cultural differences in these parasites of animal origin from those of human origin which we have been considering and, therefore, they require no comment.

In reading over this analysis, based upon the study of almost 300 cases of ringworm, I think the dermatologist who has interested himself in this branch of his specialty cannot fail to be struck by the similarity of results obtained in Paris, in London, and in Boston. There are, quite naturally, many details which differ in the three cities, but the essential points are strikingly alike. In Boston even more than in London the characteristics are similar, and one may say, in fact, that whenever a discrepancy appears it is because of the non-existence of a variety of the plant rather than of a discord in conditions common to both countries.

In conclusion, I wish to thank Mr. Louis S. Brown of the Pathological Department of the Massachusetts General Hospital for the valuable aid he has furnished me in photographing, with the greatest patience and success, the cultures and the microscopical sections, which help the reader so greatly in forming his idea of ringworm as it appears in Boston.

DESCRIPTION OF PLATES.

Fig. 1 (x 160). Microsporon Audouini in the hair. Showing the mosaic of spores and also the mycelium, which is seldom seen in these cases.

FIG. 13.

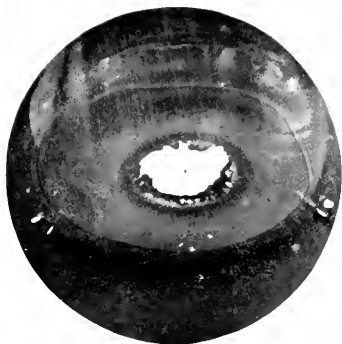


FIG. 14.



FIG. 15.



FIG. 16.



FIG. 17.



FIG. 18.



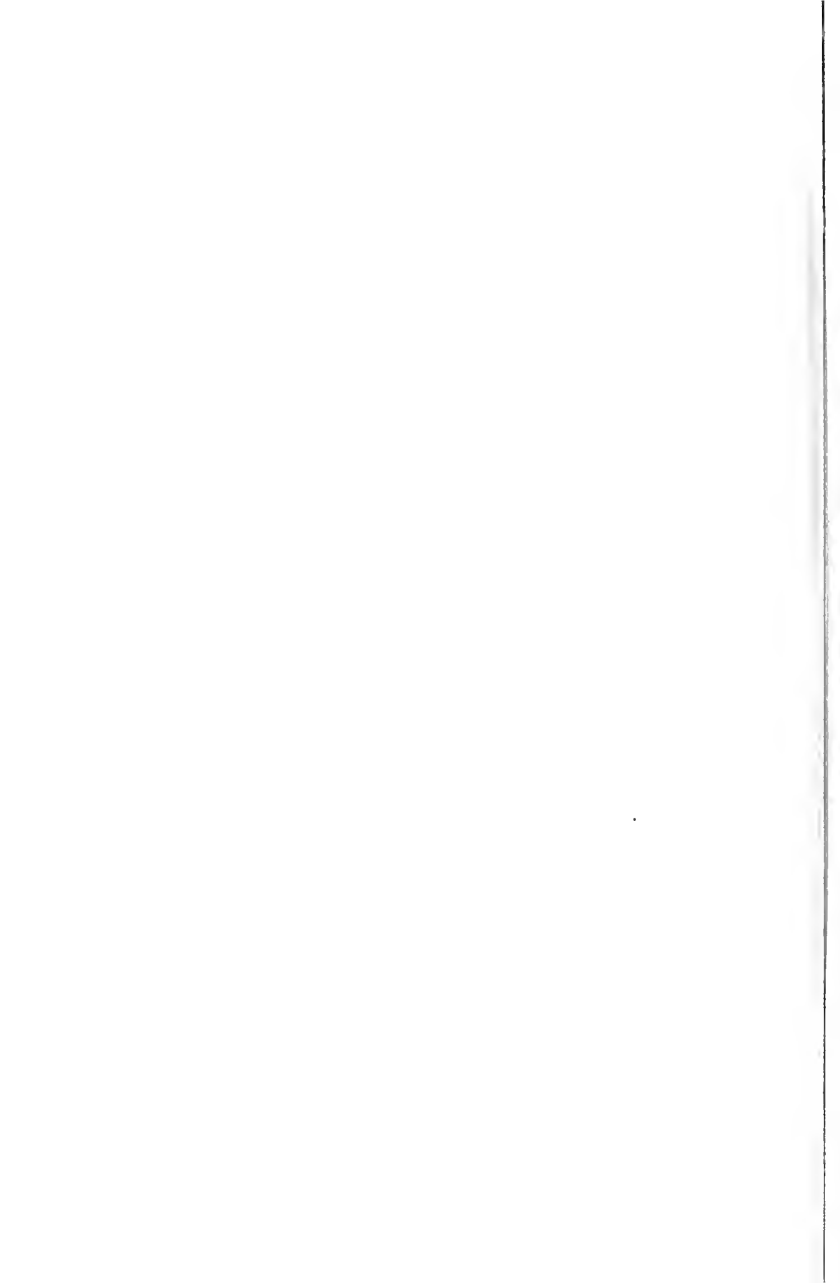


Fig. 2 (x 200). The typical picture of microsporon Audouini in the hair. After staining by Adamson's method.

Fig. 3 (x 300). Megalosporon endothrix in a scale. One line of spores in focus, others not so sharply defined.

Fig. 4 (x 300). Megalosporon ectothrix on the surface of a hair. The picture shows well the dichotomous branching of the mycelium.

Fig. 5 (x 400). Stained specimen of the mycelium of microsporon Audouini in a scale from a dog.

Fig. 6 (x 400). Stained specimen of megalosporon endothrix. A scale showing how round the spores sometimes are.

Fig. 7 (x 125). Showing the bottom of a hair-follicle with mycelium and spores of megalosporon ectothrix from the severe case of ringworm of the beard described in the text. Dr. Frost's section.

Fig. 8 (x 500). Magnification of the previous picture showing the spores and mycelium more distinctly.

Fig. 9 (x 300). Illustrating another site of the megalosporon ectothrix from the same case. The bottom of a hair-follicle stained with Unna's glycerin-ether, polychrome methylin-blue.

Fig. 10. Culture of microsporon Audouini. The commonest type in Boston. All of the following cultures were grown on Sabouraud's milieu-d'épreuve.

Fig. 11. Another frequent form of microsporon Audouini in Boston. The radiating sulci more prominent than the concentric circles of the previous type.

Fig. 12. A rarer form of microsporon Audouini.

Fig. 13. Another rare form of microsporon Audouini.

Fig. 14. The purple-violet culture of microsporon Audouini described in the text. Careful examination will reveal the red-violet hyphæ radiating from the central raised rosette of dark purple.

Fig. 15. The crateriform culture of megalosporon endothrix "à mycélium résistant."

Fig. 16. The rarer form of the same variety of megalosporon. The disfiguring mould gained access to the flask after the culture had been killed.

Fig. 17. Culture of megalosporon ectothrix.

Fig. 18. Culture of megalosporon ectothrix. Fig. 17 represents the type of plant causing the superficial, scaling variety of sycosis parasitaria and Fig. 18 represents the plant which gives rise to the deep, suppurating form.

CHRONIC CATARRHAL PROSTATITIS.¹

By H. M. CHRISTIAN, M.D.,

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THE earliest and, until recently, the most complete account of this interesting affection, is to be found in Sir Henry Thompson's work on "Diseases of the Prostate," the first edition of which appeared in 1857. It is rather a singular fact, when we take into consideration the large number of cases of this disease presenting themselves so frequently for treatment, how very little attention this subject has received at the hands of writers on genito-urinary diseases.

Thompson, in the chapter devoted to this matter, states that "its existence is barely recognized by some of the best-known writers on prostatic disease, and by some it is not even named."

White, in the "American Text-book of Genito-Urinary Diseases," notes that the chronic inflammation of the prostate is much less understood than the acute process. Very recently the subject has been brought to the notice of the profession by Taylor, in his work on "Sexual Disorders in the Male and Female," where the affection receives a most exhaustive consideration. It is also treated at some length in the recently published "American Text Book of Genito-Urinary Diseases."

Fuller, on the other hand, is rather inclined to doubt the existence of a chronic catarrhal prostatitis as a distinct and separate affection, unasociated with disease of the seminal vesicles. While agreeing with the writer in his statement that a large number of recorded cases of chronic prostatitis were in reality cases of chronic posterior urethritis, I am at the same time firmly convinced that there is abundant clinical evidence going to prove the existence of chronic catarrhal prostatitis, as a separate and distinct affection, apart from disease of the seminal vesicles.

It is necessary to bear in mind that the term is used as applying to an essentially chronic process, and as not having any relation necessarily to acute inflammation of the prostate. In the vast majority of cases catarrhal prostatitis occurs as a result of chronic posterior urethritis, the acini or follicles of the prostate becoming involved in a chronic catarrhal inflammation, from extension of the same process from the mucous membrane of the deep urethra. The gland itself is slightly enlarged,

¹ Read before the American Association of Genito-Urinary Surgeons, June 7, 1895.

soft, and the follicles distended with an abnormal amount of prostatic fluid and pus. The same pathologic condition will be found to occur at times as a result of prolonged sexual abuse; either excessive masturbation or sexual intercourse.

In taking up the subject of symptomatology, it is intended to bring to your attention only a few clinical features which are, to my mind, absolutely characteristic of the affection, leaving out of consideration altogether the long list of vague and indefinite reflex nervous phenomena found in cases of chronic inflammation of the posterior urethra and seminal vesicles, as well as in catarrhal prostatitis.

1. Prostatic discharge at the meatus upon waking in the morning. This condition is generally considered by the patient, and very often by the physician, to be gleet; and is consequently treated by strong astringent hand injections. Particularly is this likely to be the case where the condition develops as a sequel of chronic gonorrhea. The writer has under his care at the present time two cases presenting this prostatic discharge in the morning, for which they had both been using, under a doctor's advice, strong hand injections for more than a year. As a matter of fact, the discharge is distinctly different from that of true gleet, in that it is colorless, resembles glycerin in appearance, and does not stain the shirt-front. Its presence at the meatus in the morning is in all probability due to an atonic condition of the compressor urethræ muscle, which allows of the entrance into the anterior urethra of some of the excessive prostatic secretion contained in the follicles of the gland. The examination of the first morning urine will positively settle the character of this morning drop, the absence of clap-shreds in this urine proving conclusively that the discharge, which is entirely prostatic in character, is dissolved in the urine.

Another symptom very common in cases of chronic prostatitis and one fraught with more alarm to the laity than any other is prostatorrhea. This condition, first pointed out to the profession by the elder Gross, is brought about by the overdistention of the glandular tubules with prostatic secretion. Its occurrence is noted, as a general thing, at defecation, or at the close of urination, and in some few aggravated cases it appears after some unusual physical exertion.

I do not want to be understood as laying too much stress upon this symptom as a pathognomonic sign of chronic prostatitis. While a prostatic discharge at stool to the average patient is the all-important symptom in his case, it is in reality of secondary importance; occurring, as it usually does, in cases where there is no pathologic condition of the prostate whatever.

Still, in combination with other symptoms to be mentioned, it offers

strong presumptive evidence of the presence of a catarrhal prostatitis.

2. Constant urethral pain, located either at the glans penis or in the perineum, relieved temporarily by urination. This symptom I have found in so many cases that I have come to regard it as one of the characteristic phenomena of the affection. Yet strangely enough I find little or no mention made of it except by Fenwick, quoted in White and Martin's work on genito-urinary diseases, where, in the tables of genito-urinary-pain areas, taken from Fenwick, constant perineal and glans pain is set down as indicating chronic prostatitis or prostatic congestion. This I have invariably found to be the case.

The only other condition that might occasionally produce these referred pain areas, is stone in the bladder. Where the clinical features of stone in the bladder are absent, these areas of constant urethral pain complained of so much are puzzling to the surgeon and are liable to lead him astray, into looking diligently into the urethra for the source of the trouble. Under such circumstances the urethroscope will always reveal a healthy state of the urethral mucous membrane.

Another group of symptoms causing much mental perturbation to these patients is increased frequency of urination, associated with a forked or sprinkling stream, with perhaps some little dribbling. I find it at times a most difficult and trying task to disabuse their minds of the idea that they have a stricture "at the neck of the bladder," notwithstanding the palpable fact that a 30 or 32 sound will literally fall into the bladder of its own weight.

As regards the diagnosis of this affection, a rectal examination is essential in all cases where we are led to suspect, from the presence of any or all of the symptoms just described, the presence of catarrhal prostatitis. If the prostate be the seat of a chronic catarrhal inflammation, it will be found to be somewhat larger than normal and soft to the touch; stripping the gland causes much pain and is invariably followed by the appearance at the meatus of an abundant prostatic discharge, which, upon microscopic examination, is found to be made up of granular phosphates containing pus. Excluding diseased conditions of the urethra and seminal vesicles the presence of pus in the secretion obtained by stripping the prostate gland is positive evidence of chronic inflammation of the tubules of the gland.

In answer to a letter addressed to him by the writer some time ago, Dr. Taylor confirms this statement, adding, moreover, that the absence of prostatic secretion after massage is to be regarded as an indication that the follicles of the gland are unaffected.

In taking up the subject of the treatment of chronic prostatitis, it is important to devote, first of all, some little attention to the important point

of the general constitutional treatment of these cases. As is well-known, most of these patients are, or soon become, neurasthenic; and general tonics are strongly indicated, best of which are strychnin, phosphoric acid, nitromuriatic acid, and cod-liver oil. I have never seen any benefit result from the use of saw palmetto, although I have tried it on quite a number of cases. The use of ichthyol in a suppository, introduced into the rectum at bedtime, followed in the morning by a hot rectal douche, is a plan of treatment that I employ in all cases with, I believe, very beneficial results.

Our main reliance, however, in the management of this affection, must be in some of the various forms of local treatment, recommended from time to time.

Of these regular and thorough massage of the prostate at least once a week is of first importance. This maneuver should be carried out by the use of the finger alone. Mechanical devices for stripping the gland may be more asthetic, but they certainly do not accomplish the purpose nearly so well as the finger. It must be confessed that this is a most disagreeable form of treatment for the surgeon to employ, and moreover is rather revolting to the mental susceptibilities of the average patient and yet the results obtained by it are of such value that I do not consider that we are justified, out of regard to our own feelings or those of the patient, in neglecting to carry out this line of treatment thoroughly.

Second, to massage of the prostate, in value, I would place irrigation of the deep urethra with nitrate-of-silver solutions, beginning treatment with the strength of 1-6000. This deep irrigation can be employed either by use of catheter or, preferably, by forced irrigation from meatus. The strength of the silver solutions should be increased every two weeks until a strength of 1-2000 is reached. This treatment should be carried out twice a week.

The most time-honored and popular remedy for this affection has been that panacea for all genito-urinary ills, the passage into the bladder of a full-sized sound. The writer confesses to having fallen a victim to the "bougie" habit some years ago, and that he is still to a greater or less extent affected, even to this day. As a matter of fact, the regular passage of full-sized cold sounds is of considerable value in the majority of cases. At the same time great care should always be taken to see that the frequent use of the sound is not itself a source of urethral irritation, causing a more or less constant mucous discharge at the meatus.

In all cases where the sound produces a condition of urethrorrhea the discharge should be examined microscopically, and if found to be made up largely of epithelial cells this form of treatment should be promptly discontinued.

In considering one other device for the treatment of chronic prostatitis I want to put in a plea for the more extended use of the psychrophor. If the phrase, "now-nearly-out-of-date-psychrophor" employed by Dr. Taylor in his work, correctly represents our attitude to the value of this instrument, I cannot help but feel, as a result of my own experience, that we are neglecting a most beneficial means for the treatment, not only of chronic prostatitis, but of any chronic condition involving the deep urethra.

The psychrophor, to be of any value, should be full-sized No. 28 or 30, French, in order to fill as nearly as possible the prostatic urethra. The instrument generally carried in stock in the stores, of 18 or 20 caliber, is of no value whatever.

To obtain the best results ice-cold water should be used and allowed to pass through the psychrophor for about ten minutes. My own experience with the use of this instrument in cases of chronic prostatitis has been fairly extensive, and the results obtained have been good enough to warrant the statement that increased use of the psychrophor will be surely followed by increased respect.

The methods of treatment just briefly outlined are those that experience has proved to be of the greatest value in the management of this troublesome affection.

At the very best the results obtained will rarely ever be considered brilliant; in fact, I am forced to the conclusion that some few of the cases are never entirely cured.

A very interesting point arises here as to what bearing, if any, this condition has in the etiology of the senile hypertrophy of the prostate. At present our knowledge upon this subject is purely conjectural, as it is obviously impossible to obtain satisfactory data upon which to base an opinion. Another practical question suggests itself—one that we are called upon to answer every day: What effect has bicycle-riding upon chronic prostatitis? The public mind is very much exercised upon this matter of "bicycle prostate," the fear of which is constantly held before our eyes by the ingenious agent of the newest bicycle saddle. Personally, I have failed so far to be convinced that the bicycle has any injurious effect either upon cases of chronic prostatitis or upon the normal prostate.

With a saddle properly constructed and adjusted there is no harmful pressure at any part. On the other hand, the most improperly constructed saddle, pressing as it does upon the bulbomembranous portion of the urethra rather than upon the prostate gland itself, is not capable of producing the injurious effects so generally attributed to it.

A STRANGE CASE OF GRANULOMA OF THE FACE AND EXTREMITIES.¹

BY FRANCIS J. SHEPHERD, M.D., C.M.,

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IN September, 1897, a remarkable case of skin disease came under my care, the exact diagnosis of which I am not prepared at the present time to make, but I should like to get the opinion of members of this Association on the case, and exhibit the photographs taken when first seen and four months after.

CASE.—Mrs. Fred. C., æt. twenty-eight, a spare, nervous-looking woman, is a native of Canada. Has been married three years and her first child was born six and a half months ago. Never has had any miscarriages. Child strong and perfectly healthy. Up to the birth of her child has always enjoyed good health. A week or two after the child was born, two little lumps appeared on the left side of the face; they gradually grew larger, became painful, and felt "as if they were going to break." One lump was situated over the prominence of the cheekbone, and the other, of smaller size, a little lower down. Some small openings appeared in the lumps, which were flat on top, and out of these openings oozed a yellowish matter. Soon after, a similar spot or lump appeared on the middle of the outer surface of the right leg. This lump underwent the same changes as those on the face. A little later the lumps on the face became excavated and discharged a foul-smelling, thin, sero-sanguineous fluid; the upper lump on the face grew faster than the lower one and spread to the lower eyelid, which, up to a short time before my seeing her, had been quite normal. The two lumps now touched one another, but no fusion existed. I first saw her on September 21, 1897; at that time she had a large growth extending from the inner canthus of the left eye to the prominence of the right cheek, and extending downward to the level of a line passing through the nostrils; below this and a little above the angle of the mouth was a second growth, looking like a young mushroom, or a round button. Both growths were raised about three-eighths of an inch above the surface of the skin. Both growths had rather a spongy feeling when pressed and were of a pinkish color; the upper surface had a crateriform appearance, the excavation having overhanging edges, and exuding from these was a thin, sanious, foul-smelling discharge; along the under edges of the growths, a thick, cheesy, white substance like sebum

¹ Read before American Dermatological Association, June, 1898.

could be expressed. The growths were quite painful when pressed, but otherwise gave rise to no discomfort. (Fig. 1).

On the right leg near the middle of its outer surface was another tumor, the size of a 50-cent piece, not so much raised from the skin, in character much the same as the growth on the face. (Fig. 2). That this one was flatter and less raised from the skin might be due to the fact that this leg was constantly bandaged. All the lesions were at times very itchy. At no time, however, were any erythematous or urticarious lesions to be seen. A portion was cut out from the lower tumor for purposes of examination, and the following report on the specimen was made by Dr. Bradley and concurred in by Drs. Adami and Wyatt Johnston: "No special micro-organisms were discovered in connection with

FIG. 1.



the growth, and no tubercle bacilli were found. Sections from a small piece cut from the excised mass, hardened in formaldehyd, frozen, cut, and stained with alum carmine show the papillae to be increased in size and occupied by a reticulum of very fine connective tissue, the meshes of which are filled with small, nearly round, or ovoid mononuclear cells, the appearance being lymphomatous. The specimens were too small to show the internal limit of the cell infiltration. These cell masses do not seem inflammatory, as there is an absence of blood-vessels, extravasated red blood corpuscles, and increase in the fibrous tissue in the neighborhood, nor have these masses the vascular appearance of a sarcoma. The epithelium capping the papillae is thickened, the cells appearing unhealthy, the nucleus not staining deeply, hyaloplasm more or

less granular. The increase in the size of the papillæ seems to throw the papillæ into folds."

After keeping the patient for some days under observation I decided to apply locally a strong mercurial ointment, this seeming to allay the irritation and to sweeten the discharge. She decided to go home, promising to let me know from time to time how she progressed. After some two months she wrote me that she was very much improved, that the tumors were diminishing in size, and had ceased discharging. On January 11th, about three and one-half months after being first seen, she

FIG. 2.



came to town again. All the tumors had disappeared completely, leaving well-marked scars, showing considerable loss of tissue. The scar had pulled down the eyelid of the affected side so as to produce a very severe ectropion. The scar on the leg was attended by much less loss of tissue, but all were colored dark-red. The patient was in excellent health, had gained flesh, and was only now troubled by the ectropion. She had faithfully used the mercurial ointment.

The nature of the disease has puzzled me considerably. At one time I thought it might be a *mycosis fungoides*, but further study of the case

and a careful microscopic examination, with the limitations of the lesions, the absence of a premycotic stage, and the slow progress of the disease corrected this diagnosis. It had not the character of a specific gumma, and besides, there were no other evidences of syphilis, and the husband and child were perfectly healthy. Sarcoma was thought of, but the clinical history and the microscopical examination soon dismissed this suggestion from my mind. The microscopical examination would lead me to believe that the growths were due to some infection of a granulomatous character. That it was infective was inferred from the occurrence of the lesion of the leg, and the fact that a germicide ointment like the one applied had the effect of completely removing the disease, I now lean to the opinion that the case is one of infective granuloma. The great destruction of tissue is interesting and unlike what is seen in mycosis.

Since the above was written the patient has again come under my care (May 9th). The scars on the face and leg are smaller and whiter; she has lost much flesh since I saw her last January.

She now comes for disease of the knee-joint. The joint is swollen, red, and inflamed, and on the inner side are three fistulous openings, discharging a red, grumous material. The patella is freely moveable, and there is also considerable mobility of the joint, without much pain. The discharges were subjected to direct microscopical examination and cultures were taken, with negative results. No tubercle bacilli were found. The rapid course of the disease, with but little elevation of temperature and comparative painlessness, is rather against the case being one of a tuberculous nature, but the injection of tuberculin produced a decided reaction. She has another swelling a little below the left trochanter major, which is apparently subcutaneous and the size of a small hen's egg; this, also, discharges a similar reddish, grumous substance like that which is seen to come from the knee. Since entering the hospital her general condition has much improved. The question now arises, is there any connection between the original disease and the present condition? Is this case sarcomatous in its nature, one of so-called sarcoid tumor linking granulomata with sarcomata?

NOTE.—July 8, 1898. The patient went home a couple of weeks ago and I have not heard from her since, but before leaving her knee-joint improved so much that she was walking about without pain and the tumor over the trochanter had disappeared, the fistulous opening having closed, leaving a depressed scar. Some time before the fistulous opening closed some of the tissue was excised and guinea-pigs inoculated with it, without result. They thrived and grew fat after it, and on being killed showed no signs of any tuberculosis.

SOME OBSERVATIONS ON THE PROSTATE.¹

BY ROBERT HOLMES GREENE, A.M., M.D.,

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AND JAMES W. BLANCHARD, M.D.,

President Pathologist, City Hospital.

COMMENCING on February 26, 1896, and ending October 27, 1897, with the cooperation of my assistants, Drs. S. W. Schapira and N. Greenfield, I examined at the Out-Patient Department of Bellevue Hospital, 214 cases of urethritis, presenting a discharge from the anterior urethra.

These cases were in no way selected because of any subjective symptoms pointing toward the involvement of the prostate; in fact, were somewhat remarkably free from them. They represented the ordinary class of dispensary cases. These cases were examined first, in reference to the relative frequency of the involvement of the posterior urethra.

Second, the prostate was also examined in every case.

Third, in 29 cases the prostatic secretion was examined microscopically. The method of examination used to discover the extent in which the urethra was involved consisted in, first washing out carefully with warm water through a soft catheter the anterior urethra; then allowing the patient to urinate; the urine was examined by a simple test, such as "Donné's," for pus, the cases being those in which there was no indication of involvement of the bladder. These examinations were made in a manner similar to those adopted in forming statistics that have been already published by several members of this Society.

The examination of the prostate was made by the insertion of the finger in the rectum to as great a height as possible in order to feel in the vicinity of the vesicles; the purpose being to distinguish the general size of the vesicles and prostate, and any irregularities of the lobes of the latter that might be present.

As stated above, cases were not picked out presenting subjective symptoms pointing toward an acute prostatitis, and pain, even on pressure over the prostate, was a symptom not particularly complained of.

¹Read before the American Association of Genito-Urinary Surgeons, June 7, 1898.

In forming an opinion as to any swelling of the prostate I tried to be as conservative as possible. In cases of doubt, the size of the prostate was put down in the table as apparently normal. I had no particular preconceived theories to fortify, and was desirous only to observe the facts as correctly as I could. The examination of the secretion from the prostate was made as follows:

The bladder was thoroughly washed out in clean water until the outflow was very clear. The prostate was then massaged through the rectum, the finger being carried up as highly as possible. The few drops that the patient was able to urinate immediately after the massaging, containing the secretion from the prostate and water, was collected in bottles and examined microscopically. In some of these cases the secretion was extremely scant in quantity: so much so as to be hardly discernable to the naked eye, in the few drops of the fluid passed, but in the large majority of cases an amount consisting, apparently, of several drops, could be seen in the several drops of fluid passed.

Of the 214 cases examined, all told, I have a history of the number of times that they had urethritis in 120 cases. Of these, 45 stated that this was their first case, and 75 that they had had one or more attacks previously. By the use of the method of examination just described, of the 214 cases the posterior urethra was found involved in 142 cases, or 66 per cent. The anterior urethra in 72 cases, or 34 per cent.

The above statistics as regards the involvement of the posterior urethra do not, I believe, materially differ from those previously published by several members of this Society, and which have not, I think, as yet received the attention from the profession generally, or even from some of the specialists in this branch of work, that they deserve.

The examination of the prostate showed an enlargement to the examining finger in 102 cases, or about 47 per cent. of the total number of cases examined. In 101 of these cases inflammation of the posterior urethra was present and in 1 case it was apparently confined to the anterior urethra only. The enlargement, or swelling, if the word is preferred, was most marked in the left lobe of the prostate in 73 cases, or about 71 per cent. The right lobe in 19 cases, or about 19 per cent., and a general enlargement was present in 10 cases, or about 10 per cent. of the cases in which any enlargement was present.

The examinations of the secretions collected, in a manner as described above, were made in 29 cases, 6 by one and 3 by the other of two gentlemen well versed in microscopical technic; and the 20 other cases were most exhaustively examined by Dr. J W. Blanchard, Pathologist of the City Hospital of New York.

The reports of the examinations of the nine cases mentioned above

do not tend in any way to discredit the results of the examination as made by Dr. Blanchard, but were not carried out to such an extent as his. I had intended collecting more clinical material and publishing with Dr. Blanchard, at a later date, a table containing a full report of every case examined. I have the full report of the twenty cases already examined by Dr. Blanchard and I submit the following report of one case as an example of about what the others show :

CASE 153.—

1. Pus.
2. Leucocytes.
3. Few eosinophiles.
4. Very many small lymphocytes, most of them well preserved.
5. Very many erythrocytes.
6. Large and small spheroidal epithelium, with eccentric nucleus, few with central nucleus.
7. Few bodies without granules taking mixed stain homogeneously 7x9 mm. in diameter.
8. Few bacteria, mostly short, thick bacteria.

Out of the 20 specimens examined by him Dr. Blanchard reports the presence of pus in 16. Diplococci in 3. The most ordinary characteristic of the secretions as they presented themselves under the microscope seemed to be pus, mucus, and corpora amylacea, showing an infiltration into the prostatic follicles. While the presence of lymphocytes would tend to show, I believe, that some, however slight, interstitial changes were taking place. It may be difficult to draw positive conclusions from the statistics here presented—that we have two forms of posterior urethritis, one apparently remaining on the surface, the other dipping down as well into the prostate is well known. They may call attention to the fact already known that we have congestive inflammation of the prostate frequently accompanying urethritis, which do not become acute enough to give rise to abscess formation. What becomes eventually of these swellings of the prostate it would be interesting to know, as to whether the prostate entirely returns to its normal condition or not. I am personally inclined to believe that in many cases these swellings do not entirely disappear. I also believe that we may meet with them due to other causes as well as urethritis, but tabulated observations extending over a series of years are lacking. Further data, also, as to the average normal state of the prostate than are at present at hand would help us in revealing some of the many mysteries connected with that organ. Certainly, also, the accumulated evidence of observers during the past ten years, of urethritis in the male (with the exception of those gentlemen who publish statistics which tend to demonstrate that

it is an ephemeral disease which can be cured by a few irrigations), tend to show that as in the female it is a serious affection, prone to involve tissues of the body much deeper than those in which it originally commenced.

Clinical Notes.

A CASE OF VESICAL PAPILLOMA REMOVED BY EPICYSTOTOMY.

By F. TILDEN BROWN, M.D.

THE history of the case in brief is as follows:

Admitted to Presbyterian Hospital July 17, 1897. Discharged September 3, 1898. Age, sixty years; no children. Family history good. Personal history: Has had rheumatism and malaria. Very nervous temperament shown by excessive vasomotor excitability. Menstruation ceased at age of fifty-three. Present illness: Three years ago she noticed for the first time that her urine contained some blood. For two weeks no blood was seen, when it again appeared for three or four days as before. Since then hematuria has been noticed at intervals which have been gradually shortening until a month ago; since that time blood has been constantly present. From the outset some of the blood has been in the form of clots. Urination has not been attended with any particular pain, but cramp-like sensations were experienced in the abdomen at various times; in addition there are occasional pains in the lumbar and sacral region. The latter she thinks are followed by an increased amount of blood in the urine. No history suggesting gravel or calculus. Urine carefully examined for tubercle bacilli; none found. Physical examination: Rather poorly nourished; somewhat anemic; inguinal glands palpable. Abdomen rather rigid. No masses can be felt in either lumbar region but some tenderness on the left. Palpation of the hypogastric region causes a complaint of pain. Combined vaginal and abdominal examination reveals the presence of a mass anterior to the uterus to the right of the median line and believed to be on the right floor of the bladder, as digital touch at this region of the vaginovesical septum gave a resistance not felt at a corresponding point to the left of the cervix. Cystoscopic examination showed a tumor the size of a large hickory-nut situated posterior to the right ureteral opening. The tumor was generally spherical, smooth, or undulating, grayish-yellow, with a dark, slightly eroded and blood-stained depression near the base in front. The pedicle was evidently short but its relative dimensions or circumference could not be estimated. The tumor's proximity to the ureteral orifice was noted and provision made before operation for uretero-cystotomy should the new-growth infiltration be found to involve this channel.

Operation August 2d. Under chloroform anesthesia a longitudinal suprapubic incision was made to the peritoneum. The bladder was distended with air; rolled the peritoneum upward, when silk ligatures to serve as retractors were passed through the bladder-walls and an incision made between them disclosed a tumor of the

size and at the site previously estimated by the cystoscope. No induration could be detected in the vesical wall surrounding the tumor base. A temporary silk ligature was tied deeply around the pedicle and the parts above it removed with scissors. The stump was cauterized, and a purse-string suture of chromicized catgut passed through the mucous and submucous tissues just beyond the margin of tumor attachment, care being exercised not to invade the ureter; before drawing this suture the denuded portions of the pedicle were lifted up with forceps so as to secure their inclusion and prevent hemorrhage. A large rubber catheter passed through the urethra

FIG. 1.

FIG. 2.



was lightly fastened with catgut within the internal sphincter. The suprapubic vesical wound was closed with fine chromicized catgut, and the superficial tissues approximated at their ends leaving a slight intervening space for drainage.

The second day after operation there was considerable blood in the urine. This was the only complication during convalescence. The patient was discharged feeling perfectly well on September 3d.

Pathologist's Report.—(G. A. Tuttle, M.D.): "Tumor of Bladder. Microscopical examination: General structure that of a papilloma, which may or may not be malignant. In places the blood-vessels

are much dilated and hypertrophied. In the connective tissue at the base of the papillae are a few little nests of cells which look as if the growth was becoming malignant if it was not so at first."

The patient made a complete functional recovery. There is at times an indication of a slight vesical catarrh but there is no discomfort attending urination, nor is this unduly frequent. A very faint trace of albumen is noted in the urine, also a faint mucillaginous character and some small, rather irregular epithelial cells. On account of the tumor's attachment so near the right ureteral orifice, and because of the suspicious microscopical appearance of the base of the tumor, I catheterized¹ this ureter on June 2d, but the urine drawn from it gave no evidence of an ascending involvement of the ureter or kidney. The only landmarks of the site of the former tumor were six or seven irregular pin-head-sized spots denuded of epithelium (Fig. 2) just behind the ureteral opening.

The details of the urinary analyses as made by Dr. Sondern are as follows:

SPECIMEN FROM THE BLADDER PER CATHETER.

Amount: 27 c.c.	Color: amber.
Reaction: acid.	Odor: not offensive.
Deposit: very moderate.	Specific gravity: 1.014 at 15° C.
Character of deposit: heavy.	Sugar, Fehling's test: negative.
Albumin, ferrocyanid test: negative.	Sugar, fermentation-test: not made.
Albumin, Heller's test: trace.	
Amount, Esbach's test: trace.	
Bile: negative.	Acetone: not made.
Urea in 1 c.c.: 0.017 gram.	Chlorids: 0.0075 in 1 c.c.
Indican: not made.	Phosphates: slight excess.
Additional tests: Peptones: present; Mucine: present.	

MICROSCOPIC EXAMINATION.

Sediment obtained by centrifuge 3 minutes at 2500 revolutions.

Blood: none.
 Pus: moderate amount.
 Mucus: moderate amount.
 Casts: none.
 Bacteria: no pathogenic varieties found.
 Epithelium: numerous cells from the superficial layer of the bladder.
 Cryst. and amorph. deposit: very small amount of uric acid in crystals.
 Other structures: none.

SPECIMEN FROM THE RIGHT KIDNEY PER CATHETER.

Amount: 13 c.c.	Color: almost none.
Reaction: acid.	Odor: not offensive.
Deposit: slight.	Specific gravity: 1.008 at 15° C.
Character of deposit: heavy.	Sugar, Fehling's test: negative.

¹ Brenner's Catheter Cystoscope.

Albumin, ferrocyanid test: faint trace. Sugar, fermentation-test: not made.
 Albumin, Heller's test: faint trace.
 Amount, Esbach's test: faint trace.
 Bile: negative. Acetone: not made.
 Urea in 1 c.c.: 0.012 gram. Chlorids: 0.005 in 1 c.c.
 Indican: not made. Phosphates: no excess.
 Additional tests: peptone: negative.

MICROSCOPIC EXAMINATION.

Sediment obtained by centrifuge 3 minutes.

Blood: few cells only.
 Pus: very small amount.
 Mucus: small amount.
 Casts: none.
 Bacteria: no pathogenic varieties found.
 Epithelium: large number of caudate cells, probably of renal pelvis; and many round cells, probably of ureter.
 Cryst. and amorph. deposit: none.
 Other structures: none.

Book Reviews.

Die Pathologie und Therapie der Sterilität beider Geschlechter. E. FINGER und M. SAENGER. Part I. *Die Pathologie und Therapie der Sterilität beim Mann.* E. FINGER. Arthur Georgi, Leipzig, 1898.

This is, we believe, the most thorough and comprehensive work that has yet appeared on this subject, and the matter is presented in a clear and convincing way.

After the introduction, which calls attention to the false views previously held, that men who were sexually potent were also necessarily not sterile, a chapter on the physiology is given. The author claims the existence of a separate center for ejaculation apart from the center for erection and treats more thoroughly than is usually done of the neurological side of the physiology.

The rest of the work is divided into: I. Impotentia coeundi; II. Impotentia generandi.

Etiology of the former he divides into: A. Causes of impotence dependent upon pathological and anatomical defects. B. Causes not dependent upon either pathological or anatomical defects in the organs themselves. C. Paralytic impotence.

The latter he divides into: A. Sterility in the male from pathological changes in the spermatid fluid. (1) Azoospermia. B. Sterility from disturbance of the evacuation of serum. Aspermatism. (1) Mechanical or organic aspermatism. (2) Nervous or psychic aspermatism. C. Relative sterility. (1) Necrospermia.

The work is an amplification of the many well-known pathological studies on this subject which have come from this author and is a great addition to our knowledge.

Ueber Spermatocystitis Gonorrhoea. DR. WALTER COLLAN. Leopold Voss, Hamburg and Leipzig, 1898, 3m., 50 pp.

This little work which emanates from Finger's clinic under his influence, presents an interesting study of the subject based mainly upon the microscopic examination of material expressed from the seminal vesicles in fifteen patients with chronic gonorrhoea, their symptoms pointing to diseases of these organs. The author also gives a résumé of the literature.

After a perusal of the work one cannot help thinking how little has been done in the pathology of these organs and how little is really known. The post-mortem examination of the vesicles, with plates showing the microscopic findings, in the case of a patient dying of pneumonia is given, which adds nothing to our present knowledge.

The proportion of the cases in which gonococci were found in the contents of the seminal vesicles is of interest, occurring in nine out of the fifteen cases. The author gives no description of the condition of the prostate and seminal vesicles as felt through the rectum, which would have been of interest in connection with the microscopic findings. In fact, he seems to be of the belief that it is not possible in many cases to reach the vesicles with the finger, at least to empty them, so apparently has thought the examination with the finger to be of little value.

The manner of collecting and examining the sago-like bodies from the vesicle, as done in the majority of cases, is of interest. These were caught, washed in sterilized water, embedded in celloidin and allowed to harden; then sections were made of them. This was done to make sure that the material from the vesicles was not contaminated with secretion from the prostate.

We cannot agree with the author that the best method of obtaining material from the vesicles is with the Feleki instrument with the bladder full. This was done on the ground that the finger does not reach high enough to express the vesical contents. With the patient on his back and the bladder full it is quite certain that we cannot reach as high, nor make as satisfactory an examination with the finger, as when the bladder is half empty and the patient is standing in Fuller's position, bending forward with hands resting on a chair seat, the body being at an angle of forty-five to seventy degrees from the perpendicular.

To obtain the material as unmixed as possible from secretion of prostate and other portions of the urethra, massage of the prostate was first made with the Feleki instrument as thoroughly as possible (it is certain that this cannot be so surely done with the instrument as with the finger), the instrument presumably not being allowed to reach as high as the vesicles, then the patient was made to urinate. The vesicles were then emptied and the bladder emptied by the patient, this last portion containing the material from the vesicles.

For treatment nothing new is offered; massage with the Feleki instrument in suitable cases. A favorable prognosis is given except in those cases, which the author finds to be extremely rare, in which the vesicular contents are in a high degree purulent with destruction of the living membrane.

The work adds something to our knowledge of the subject, and is well worth a perusal

G. K. S.

Society Transactions.

THE NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SEVENTY-FIRST REGULAR MEETING, HELD ON TUESDAY,
SEPTEMBER 27, 1898.

DR. DANIEL LEWIS, *President, in the Chair.*

A Case of Bromid-of-Potash Eruption.—Presented by DR. GEORGE T. ELLIOT.

The patient was a baby nine-months old, with typical bromid eruption, universal in character, and of the fungating, papulopustular variety. The history obtainable from the mother was not altogether satisfactory, though it was ascertained that the child had been taking prior to the outbreak a mixture for bronchitis which contained a considerable amount of bromid of potassium and bromid of sodium. The eruption had first appeared last June, and had persisted ever since. On two occasions during June and August the prescriptions given contained the drugs mentioned.

DR. P. A. MORROW referred to the similarity between this case and one previously shown by Dr. Jackson. In both of these cases it seemed that new lesions had made their appearance after the drug had been discontinued. In the majority of cases of drug eruptions new lesions do not continue to appear when the exciting cause has been discontinued. This may be formulated as a general characteristic of these eruptions to which there are few exceptions. The agminate character of the lesions in Dr. Elliot's case was another interesting feature.

DR. GEORGE T. JACKSON said that altogether he had observed five cases of this affection. In one of his cases the lesions kept appearing for a long time after the drug which caused them had been discontinued. In another of his cases the eruption had been induced by very small doses of bromid. The speaker said he thought the eruption was comparatively rare.

DR. MORROW said he did not think the dose of the drug had any marked influence on the production of these eruptions. In most cases they are due to individual idiosyncrasy. In a case like the one shown by Dr. Elliot, where marked nutritive changes have occurred, producing large and deep lesions, they are probably the result of a long continuance of the drug rather than of large doses.

DR. FOX referred to one case of bromid eruption coming under his observation where a large patch on the back was mistaken by a surgeon for malignant disease, and an operation had been advised. The eruption often bears a striking resemblance to syphilis, and in one case in an infant he had mistaken it for a time for inherited disease. In cases where the eruption is limited to the bearded portion of the face, it looks very much like a sycosis. In some cases large patches occur on the cheeks; these sometimes contain an apparently inordinate amount of pus for the size of the lesion, and this can be squeezed out through numerous small apertures, as in a carbuncle.

DR. C. W. ALLEN said he had seen a number of cases of bromid eruption occurring in young children who were being treated for epilepsy. He particularly

had in mind two little girls whose chief lesions were on the legs, low down, as in the case shown by Dr. Elliot. In one of his cases there was an exuberant lesion on the leg almost two inches in diameter, which was very obstinate and took a long time to heal. The speaker said he agreed with Dr. Morrow that very minute doses of the bromids and of certain other drugs, as quinin, may sometimes give rise to severe eruptions, which may persist for a long time after the exciting cause has been discontinued.

Dr. E. B. BRONSON referred to the question as to whether such eruptions as this were or were not due to the direct action of the drug on the follicles in the process of elimination. He was aware that the negative had been asserted because of failure to detect bromin or iodine, as the case might be, in the follicular secretion, and yet there was much in the character of these eruptions to suggest the affirmative view.

Dr. S. SHERWELL said he had seen several interesting cases of bromid and iodid eruption. In the former, occurring in young subjects, he had sometimes observed large, elevated, pultaceous-looking masses, like exaggerated kerion, but containing no pus, which often persisted for a long time. Dr. Sherwell said he had several times seen iodid eruption appear after the administration of very small doses of the drug. In one case an eruption occurred which was pronounced a pemphigus by the attending physician; this patient was a woman who on three different occasions developed a severe eruption after taking potassium iodid. An iodid eruption is often, in his experience, similar to that caused by bromid, but not so massive.

Dr. S. LUSTGARTEN said that an iodid eruption quickly subsides after the drug is discontinued, and in that respect it differs from a bromid eruption. The latter, as a rule, does not make its appearance until after the drug has been given at least three weeks, and it may persist for that length of time and longer after the discontinuance of the drug. The theory has been advanced that the persistence of the eruption is due to the fact that bromine has been substituted for the chlorine in the salts of the body and that it takes a certain length of time for this surplus to be eliminated. It would be interesting to ascertain how long bromine can be found in the urine after the administration of the drug has been discontinued. The two most constant characteristics of the bromid eruption are its late onset and its persistence.

Dr. MORROW said he was positive that he had seen eruptions due to bromid of potassium disappear very promptly after the cessation of the drug; he was not disposed to believe that, as a rule, new lesions continued to develop for three or four weeks or longer after discontinuing it. Of course, the rapidity with which the lesions subsided depended on their character, *i. e.*, their depth and the amount of tissue involved. Obviously a superficial lesion would not require the same time for its involution as the profound tissue changes represented by an inflammatory nodule or deep ulceration. Dr. Morrow said he had seen many cases of bromine acne disappear soon after the drug had been discontinued, and no new lesions had developed. This was a matter of common observation by those who used the bromids extensively. In the causation of these eruptions, the peculiar susceptibility of the patient is a more important factor than the size of the dose. We see cases of rhin poisoning, for example, in persons who have simply exposed themselves in the leeward proximity of the shrub, without coming in actual contact with it.

Dr. ELLIOT said that in a paper which he had read on this subject at the meeting of the American Dermatological Association which was held in Montreal two

years ago, he had reported two similar cases of bromid eruption and he then had made the assertion that old lesions may persist and new ones appear for a number of months after the ingestion of the drug had been stopped. In this case the lesions still kept coming out, though no bromid had been given for fully six weeks. In connection with the diagnosis of these cases, he would call attention to the fact that the primary lesion is a papule of a red, brownish color, smooth on top, but underneath the epidermis there soon developed an aggregation of small miliary points of pus. He has always regarded this as a strong clinical diagnostic point, suggesting the origin of the eruption. When fully developed he regarded the lesion as having a close resemblance to a granuloma of the most variable origin.

Dr. Elliot said we do not know absolutely the origin of the eruption. Whether it is due to the elimination of bromin by the skin or to the production of a toxin is as yet an unsettled question. He did not agree with the statement of Dr. Jackson that these cases were rare; he had seen a number in children who had been or were taking a bromid mixture for bronchitis, etc., and strange to say, the nature of the eruption was invariably unrecognized by the attending physician.

A Case of Idiopathic Cutaneous Atrophy.—Presented by DR. O. H. HOLDER.

The patient was a woman, fifty-four years old; married. She had had four children, who are alive and well; no miscarriages. The patient had always enjoyed good health with the exception of a discharge from one ear which had persisted since early childhood. She passed the menopause at the age of fifty, and her present trouble dates from that time, nearly eight years ago. The cutaneous disturbance was first noticed on the dorsum of the right hand. The atrophy now occupies the extensor surfaces of both hands and elbows; both legs are also affected, the plantar surfaces, however, being spared. The patient was originally seen by Dr. Denton of the Woman's Hospital, and an examination there disclosed a ruptured perineum, rectocele, and cystocele. The atrophic area on the lower extremities invades the vagina for a distance of about two inches, where it terminates in an injected circular line on the rectocele and cystocele. The patient complains of great dizziness and is extremely nervous. Her general health is good. The atrophic areas bleed easily on irritation, but heal without any trouble.

Dr. J. A. FORDYCE said it was interesting to compare this case with the one which he had shown before this Society about eighteen months ago. In both cases the atrophy was limited to the dorsal surfaces of the hands, arms, and lower extremities, and in both there were certain nervous manifestations, *i. e.*, headaches, dizziness, and extreme nervousness. In his case there was partial deafness; in the one shown by Dr. Holder there was a history of otorrhea. In neither of the cases, however, were there any symptoms pointing to organic nervous disease.

Dr. JACKSON said he had recently seen a woman at the Presbyterian Hospital with atrophy of the skin not only in the region of the knees and elbows but also affecting the whole lower extremities. The patient was a Swede. She was extremely nervous, and after any slight injury to the skin a severe ulceration would result. There were no indications of organic nervous trouble.

Dr. BRONSON said that in a case of this affection which he reported to the American Dermatological Association a number of years ago he did not observe any particular nervous symptoms; the patient's general health seemed to be very good. The only symptom he complained of was muscular weakness after standing all day. That case was of many years' duration.

DR. ELLIOT said the cases shown by Dr. Fordyce and Holder resembled one of his own which he had reported and in which the atrophy of the skin was preceded by a zone of redness. This fact he thought had some bearing on the etiology of the disease. He had been unable to secure a specimen for microscopical examination, but thought that this advancing red border was probably due to some local vascular disease and the atrophy was dependent upon it.

DR. FORDYCE said he had examined a number of sections in his case and had found marked changes in the vessels, the lumen of some being completely obliterated.

A Case of Dystrophia of the Nails.—Presented by DR. P. A. MORROW.

The patient was a young woman with a peculiar affection of the nails of the hands and feet, associated with an eruption of the skin which was confined to a few patches on the scalp, the axillæ, and legs. It seemed to affect the flexor rather than the extensor surfaces. Dr. Morrow said he regarded the skin eruption as an eczema, although it suggested psoriasis, both on account of the scaly appearance of the lesions and the psoriatic character of the dystrophia of the nails.

DR. L. D. BULKLEY said he had seen some remarkable cases of nail disease. He had in his possession models of one case where the affection was due to an eczematous degeneration which continued until mere stubs of the nails were left. He had always looked upon these cases as neurotic in character, and in their treatment had placed his chief reliance on strychnia, arsenic, iron, and cod-liver oil. Affections of the nails associated with psoriasis he had found more rebellious to treatment than the eczematous variety. The speaker said he would include Dr. Morrow's case in the latter category, and believed that prolonged internal treatment would result in recovery of good nails.

DR. JAMES C. JOHNSTON said that aside from the parasitic varieties affections of the nails were not easy to diagnose. Psoriasis of the nails, however, when fully developed, can be recognized by the extreme thinning of the nails and their elevation by scale accumulation at the sides, forming the so-called "shovel-shape." The speaker said he had seen cases of psoriasis diagnosed by the appearance of the nails alone. He regarded Dr. Morrow's case as one of psoriasis in the early stage.

DR. H. H. WHITEHOUSE said the case did not strike him as being one of psoriasis of the nails. The yellow, semilunar discoloration beginning at the edge of the nails is absent in this case; on the other hand, there is noticeable a pitting in the center of the nails which is very characteristic of eczema.

DR. ALLEN said he agreed with Dr. Bulkley that vigorous internal treatment was indicated in the management of these cases. In addition to strychnia, the speaker said he would suggest the use of arsenic, which often exerts a marked influence on the reproduction of the nails, in both the eczematous and psoriatic cases.

DR. BRONSON said he did not regard this as a case of psoriasis. He considered it a case of dystrophia of the nails—an affection of not very uncommon occurrence, and one that is commonly called eczema of the nails. This designation did not properly apply, however, inasmuch as there is no evidence of eczema in the matrix or elsewhere. It is usually associated with malnutrition of the skin, the skin being roughened and its stria deepened. The disease was apparently a form of simple keratosis with no relation either to psoriasis or eczema. It was very rebellious to treatment.

DR. S. SHERWELL said he agreed in the statements of Dr. Bronson. The

speaker said he had several times observed a condition of the nails similar to that in Dr. Morrow's case in persons who were not psoriatic. One of the cases he had in mind was a Swede who had lived for a long time in South Africa; while residing there he suffered severely from malaria and subsequently several of his finger-nails became affected by this dystrophia, as it might properly be called. There were no evidences or history of psoriasis.

DR. ELLIOT said he would not pronounce such a case either psoriasis or eczema unless other evidences of these diseases existed, and would not make a diagnosis of neurotic dystrophy of the nails without first excluding tinea by microscopical examination. Not long ago he had seen a case, a French servant-girl, who had had a marked dystrophy of the nails since infancy; it had been regarded as a neurotic condition, and various methods of treatment had been unsuccessfully tried. Paring of the nails under the microscope showed tinea which under appropriate treatment entirely got well. Dr. Elliot said that tinea of the nails is probably much more common than generally conceded. When thus affected the nails become dystrophic in appearance and we jump to the conclusion that the case is one of neurotic causation, no microscopic examination of parings being made.

DR. MORROW said the patient he had presented had suffered from neurasthenia for a number of years. He looked upon the nail affection as a local expression of the general malnutrition of the system, in which the appendages are liable to suffer. The speaker called attention to the fact that in this case the pulp of the fingers seemed to be atrophied, lacking firmness and roundness. When he first saw the patient, about two years ago, she had an eruption of the lower limbs which he regarded as a seborrheal eczema. This got well under treatment. She now has an undoubted seborrheal eczema of the scalp; she also has some scaly patches under the arms and a few in the flexures about the genitals. The skin lesions resemble an eczema rather than a psoriasis. In conclusion, Dr. Morrow said he had been unwilling to classify his case as one of either eczema or psoriasis, and presented it simply as one of dystrophia of the nails.

A Case of Psoriasis.—Presented by DR. C. W. ALLEN.

The patient was a middle-aged Russian, who had presented himself with a generalized eruption and the statement that he was suffering from syphilis. There was marked general glandular enlargement, those in the groin being especially enlarged. The penis bore the scar of a chancre which he had while living in Russia, and where the man said he had been treated for syphilis.

DR. BULKLEY thought the eruption represented something besides psoriasis, the patches on the forehead being very suggestive of syphilis. There were also a number of lesions which were suggestive of seborrheal eczema. The speaker said he had seen a number of cases of psoriasis combined with syphilis, and in some instances it had produced a decided change in the psoriatic lesions, rendering them thicker and more succulent. It was very natural that the poison of syphilis should have a more decided effect in regions where a faulty nutrition of the skin already exists.

DRS. FORDYCE and MORROW regarded the case as one of psoriasis, pure and simple.

DR. BRONSON said he did not see any evidences of syphilis. The speaker referred to the fact that a patient with psoriasis who becomes infected with syphilis, was peculiarly liable to have some of the psoriatic lesions become the sites of syphilitic infiltration. There was nothing of that in the present case.

Dr. Fox said he had never observed any particular change produced in the appearance of psoriatic lesions by a supervening syphilitic infection. In many cases of squamous syphilide we may see a picture which is so like psoriasis that a mistake might easily be made, but syphilis probably never changes the character of a psoriasis or any other skin eruption. Where we have syphilis, the syphilitic eruption is either present or absent; there is no such thing as a syphilitic taint modifying an ordinary skin eruption.

Dr. Bronson said he agreed with Dr. Fox in so far that he regarded the term *psoriasis syphilitica* as a misnomer. He was inclined to believe, however, that the manifestations of syphilis were peculiarly apt to affect preexisting psoriatic patches.

Dr. SHERWELL said his views on this subject were exactly the reverse of those expressed by Dr. Fox. He believed that a psoriatic eruption is in almost every instance affected to some degree by a supervening syphilitic infection.

Dr. LUSTGARTEN said he did not fully agree with Dr. Bronson that the appearance of psoriatic lesions was frequently changed by a supervening syphilitic infection. The speaker said he had seen quite a number of cases of psoriasis which were unaffected by a later syphilis; in a few such instances, however, which he had in mind, the psoriatic lesions became brown and indurated, showing the characteristic features of syphilis while retaining some of the features of psoriasis, such as location, scaling, etc. Such an occurrence seems hardly surprising as an eruptive syphilis shows a predilection for a *pars minoris resistentiae*.

Dr. ELLIOT said he could not recall a single case of psoriasis in which the appearance of the lesions had been altered by a supervening syphilis. The speaker agreed entirely with Dr. Fox.

Dr. Fox said that in a psoriatic subject a syphilide is apt to assume a psoriatic form, but it can readily be distinguished from true psoriasis.

Dr. ALLEN, who showed the case, said that he had failed to find any marked evidences of syphilis, aside from the scar of the chancre. One peculiarity of the eruption in this case was the intense pruritus. The speaker said he had seen psoriatics modified by a supervening syphilis in some instances, while in others the former disease remains entirely unaffected by the latter. No absolute rule can be laid down in this regard. We know that the acute exanthemata are apt to affect patches of psoriasis. In one case of combined psoriasis and varicella coming under his observation, the lesions of the acute disease were largely confined to the psoriatic areas.

A Case of Morphœa Treated by Electrolysis.—Presented by Dr. ALLEN.

The young man shown was a private patient who had already been presented by Dr. Allen at a previous meeting. He had a patch of morphœa or localized scleroderma on the chin and another extending from within the hairy scalp down in front of the ear to the middle of the cheek. The lesions had first appeared about a year ago. They were at first raised and thickened, and showed characteristic violaceous border. Under electrolysis marked improvement had taken place. The gentleman had just returned from the Porto-Rican campaign and had been for three months without treatment.

A Case of X-ray Dermatitis.—Presented by Dr. SHERWELL.

The patient was a young man who at various times had suffered from X-ray burns as the result of experiments with the rays on his own person. At present he has an erythematous eruption over the upper part of the right chest anteriorly, which

appeared after a long exposure to the rays of the right shoulder-joint, another on right temporal region which had caused an alopecia, and still another on right knee-joint—all were improving, however, under slightly stimulant and soothing unguents. He simply presented the case, which was otherwise not remarkable, as an addition to the list of dermatites caused by the X-ray.

A Case for Diagnosis.—Presented by Dr. P. A. MORROW.

The patient was a young physician with an affection of the hair on the right leg which first appeared about six months ago. The condition exactly resembled that described as monilethrix by Gilchrist a short time since in this Journal.

Selections.

GENITO-URINARY DISEASES.

A Discussion on the Origin, Effects and Treatment of Septic Infection of the Urinary Tract.—(*Brit. Med. Journal*, p. 1302, 1898; 66th Annual Meeting of the British Medical Association, Surgical Section, at Edinburg, July, 1898).

I.—DAVID NEWMAN, M.D., F.F.P.S.G. The author suggests the following classifications of septic renal disease with their definitions.

1. *Parulent Embolic Nephritis*.—A descending septic and suppurative lesion of the kidney, without pre-existing disease of the conducting and collecting portions of the urinary tract, the septic virus being conveyed to the kidney by the blood.

2. *Parulent Interstitial Nephritis*.—An ascending interstitial nephritis, infection being by the lymphatics, from a primary septic focus in the lower urinary passages.

3. *Acute Septic Nephritis without Suppuration*.—An ascending septic lesion of the kidney without suppuration, the virus being carried from the lower urinary tract to the kidney (most commonly to the cortex) by the lymphatics.

4. *Pylonephritis*.—Suppurative nephritis with antecedent septic disease of the pelvis, the secondary foci in the parenchyma of the kidney being mostly due to direct contamination of the lymphatics.

5. *Pyelitis*.—Suppurative disease of the mucous membrane of the pelvis, without distention of that cavity.

6. *Pyonephrosis*.—Accumulation of pus or of purulent urine in the pelvis of the kidney, the accumulation being a result of mechanical obstruction, with atrophy of the renal tissue, but without secondary independent foci or independent accumulations of pus in the parenchyma of the organ.

It is generally agreed that renal suppuration is directly caused by the invasion of microbes from some source or other, or by their toxins, but it is now known that certain conditions are necessary before these organisms are able to gain a foothold. For in the healthy individual there are natural barriers to the invasion of microbes rendering them harmless, unless certain pathological changes, not altogether well understood, exist. For instance, an important observation bearing upon sepsis of the bladder is that, in a majority of such cases, that organ has been examined either by the finger, or by instruments prior to the onset of the cystitis.

As a result of experimental inquiry the following conclusions are drawn:

1. That simple retention of urine does not give rise to septic inflammation.
2. That small cultures of pyogenic micro-organisms, such as staphylococcus pyogenes aureus, or albus, or of bacillus coli communis, when introduced into the healthy bladder fail to produce sepsis.
3. That if the mucous membrane of the bladder be injured or diseased prior to the introduction of micro-organisms, sepsis immediately occurs.
4. That if artificial retention of urine is induced from six to twenty hours after the introduction of the septic organisms into the bladder, suppurative inflammation of the mucous membrane follows.

As to septic inflammation of the kidneys, while suppurative diseases of these organs frequently come under the care of the surgeon, they are comparatively rare as contrasted with the non-suppurative maladies, and lesions characterized by considerable accumulations of organic fluid, or by the presence of masses of foreign matter, may remain sterile for long periods.

The anatomical situation of the kidney and its independent lymphatic supply communicating, except in the most restricted way, only with that of the urinary tract, tend to isolate and protect it. The power of the bladder to resist the attack of microbes, the intermittent escape of the urine through ureters, the barrier to the backward flow of the urine, and the power of the bladder to empty itself may be regarded as physiological protectors to be overcome before septic inflammation may be induced.

Certain injuries and diseases of the general nervous system at once decrease the natural resisting power of the bladder. Then too the influence of the local nervous system upon inflammatory processes, either by impairing the nutritive activity of the parts, or by diminishing phagocytosis, is most important, and it is difficult to say how far instrumentation of the urethra or bladder acts by reflex irritation through the nervous system. The presence of an impacted stone in the urethra may lead to orchitis, or the passage of the sterile bougie may be followed by complete suppression of urine, followed by renal hematuria for some days. Thus the circulation of the kidney is interfered with, and if there has been any contamination the danger of acute sepsis of the whole urinary tract is very great.

Septic lesions of the kidney may be induced by:

1. Infarctions arising from the infective emboli conveyed through the blood streams from remote tissues or organs.
2. Invasion along the lymphatics of the urinary system.
3. Contagion along the lumina of the excretory ducts.
4. Septic contamination by contiguity with abdominal organs.
5. Wounds.

1. *Invasion by the blood.*—In purulent embolic nephritis the virus is carried by the blood from some infected focus, it may be at a distance from the kidney and corresponds to descending infective nephritis. The primary lesion may be erysipelas, pyemia, osteomyelitis, one of the eruptive fevers, malignant endocarditis, suppurative diseases of the skin, lungs, alimentary tract, or of the serous surfaces. Whatever the nature of the microbe the histological changes in the kidneys are much the same. The lesion is embolic, but there is more than simple obstruction to the circulation, the embolus, containing infective material, sets up inflammatory processes in the plugged vessels and in the surrounding tissues. The process goes on to suppuration and destruction of the affected area. Both kidneys are generally affected, the abscesses are usually small and multiple, and on account of the arrangement of the blood-vessels these areas are more abundant in the cortex.

There may be instances of auto-infection of the kidney, or the blood-vessels may carry infective material from one portion of the urinary tract to another. The earlier lesions being due to an ascending infection, while the later lesions are the result of minute infective infarctions. Septic kidney, when the infarctions are few in number, may become chronic by the abscess rupturing into the pelvis.

2. *Invasion by the Lymphatics.*—To illustrate the arrangement of lymphatics, when an injection mass is forced into the ureter, the mucous membrane having been previously lacerated, the fluid proceeds directly into the lymphatic vessels surrounding the ureter and passes downward toward the bladder and upward toward the kidney. Thus the lymphatics pursue a direct course along the sub-mucous connective tissue surrounding the ureter, from the bladder to the capsule of the kidney, they then penetrate the renal substance and lie in spaces between the uriniferous tubules.

In septic nephritis, without suppuration, the virus is conveyed by the lymphatic channels from the lower urinary tract to the cortex of the kidney. Thus a very acute septic absorption may take place resulting from injury say in the urethra at the neck of the bladder, and a violent septic poisoning be induced in the kidney without the mucous membrane of the ureter or pelvis being involved. In most of these very acute cases the patient has suffered previously from chronic albuminuria and cystitis. Suddenly after an operation upon the urethra or bladder he has a violent rigor and suppression of urine, which may continue, or be followed by a more or less profuse renal hematuria, or there may be profound collapse, which may terminate fatally within forty-eight hours.

In many instances the infection is not so violent, the line of invasion can be more readily traced, and the time which elapses may be sufficient for the formation of small suppurative foci, and we have a form of purulent interstitial nephritis.

3. *Septic infection along the lumina of the excretory ducts* is the most common cause of pyelitis, pyonephrosis and pyelonephritis; but while the infective material is generally conveyed along the lumina of the ureter, pelvis, and uriniferous tubules in the first instance, in almost all cases later lesions are produced by an auto-inoculation along the lymphatics or blood-vessels.

4. *Septic contamination by contiguity* is not uncommon, but may occur in the form of abscess of the kidney secondary to perinephritic abscess, psoas abscess, abscess of liver or spleen, or to tuberculous vertebræ. Where abscess of kidney follows contusions, falls, rupture of kidney without a wound, may not the juxtaposition of the injured part to the colon facilitate contamination with the bacillus coli communis?

5. *Wounds* of the kidney need only to be mentioned as a cause of septic trouble.

II.—T. ROVSING, M.D., of Copenhagen. The author's opinions are based upon the bacteriological examinations and personal treatment of about 200 cases.

A. ORIGIN.—In a general way two groups of bacteria will be found which govern the urinary region: (1) those which decompose the urea (*staphylococcus pyogenes aureus* and *albus*, *proteus* Hauser, various diplococci and staff bacteria both pyogenic and non-pyogenic), and (2) those bacteria known under the name of coli bacilli. The reason for this is that the two main sources of infection of the urinary organs are the urethra and the intestines. Normally the urethra contains microbes which decompose the urea, in inflammation of that organ their number increases enormously. Coli bacilli swarm in the

intestines. These latter may occasionally enter the urinary tract by the urethra, and urea-decomposing bacteria may enter by the intestines, but the rule is the other way.

Infection from the urethra was that which was first observed, and the theory that infection of the urinary tract always started from the urethra and was ascending was the prevailing opinion until in 1880, the author proved that infection may also be descending. He believes that infection is conveyed through the blood much more frequently than was supposed, especially from the intestines; infection from the urethra most frequently takes place from the introduction of instruments, carrying germs from the urethra into the bladder. Sterilization of instruments diminishes the frequency but slightly for the urethra swarms with microbes.

Infection may pass from the urethra to bladder without instrumentation: (1) When there is a posterior urethritis with collection of pus behind a stricture making urination difficult, causing regurgitation of urine, thus conveying pus and microbes into the bladder, more rarely infection may extend *per continui tatem* from urethra to bladder along the mucous membrane in severe inflammation; (2) infection may take place from urethra when not the seat of inflammation in cases of incontinence of urine, where the sphincter falls as a barrier, and the oozing stream forms a road of communication.

Next in frequency to infection from urethra comes infection from the blood. By metastasis from any infected organ is one way. The intestines being the most frequent source. The reasons are: (1) that the coli bacilli, or coli bacilli plus other microbes are, as a rule, the cause of infection. (2) Such spontaneous infection often appears in patients with symptoms of acute or chronic enteritis, especially colitis with chronic constipation. (3) Experiments by Posner and Lewin, who found that on ligation of intestines microbes from the intestines passed into the urine.

This form of invasion takes place most frequently in the kidneys. The reasons are: (1) the kidney is one of the organs in which the blood most frequently deposits micro-organisms; (2) many of these cases commence with the appearance of an acute but slight and short nephritis; (3) the inflammation in the majority of cases is confined to the pelvis.

A third road for infection of the urinary organs is the direct conveyance of inflammation from an adjacent organ by perforation from abscess in the peritoneal cavity, ovaries, prostate, etc.; also, by diffuse inflammatory infiltrations, which spread from an adjacent diseased organ (uterus, rectum) through the different urinary layers of the urinary bladder.

B. EFFECTS.—The Guyon School is of the opinion that almost all infectious diseases of the urinary tract are due to the bacterium coli, and that the severest and most dangerous forms of cystitis, the fatal ascending nephritis with and without abscesses and, finally, the violent cases of urine infection resembling septicæmia are due to that microbe, while the urea-decomposing microbes are believed to be of secondary importance.

The author believes the exact contrary, basing his reasons upon his own personal observations.

1. *Non suppurative Effects (Bacteriuria, Epithelial Cystitis).*—Here the power, or the want of power, of the microbes to decompose the urea forms an important difference in the clinical picture presented.

The non decomposing microbes, as the bacterium coli, give a pure and typical picture of bacteriuria; the only difference from the normal state being the changes in the urine, which is diffusely turbid, and sometimes has a peculiar odor. Cysto-

scopic examination shows the mucous membrane of the bladder to be perfectly normal, while the presence of urea-decomposing, non-pyogenic microbes (staphylococci, diplococci, staff bacteria) show a marked change in the picture, there is ammoniacal, turbid urine with a pus-like deposit, containing crystals of triple phosphates, epithelial cells, some red and white blood-cells, numerous microbes. There is also frequent and painful tenismus. On cystoscopic examination the mucous membrane is red and swollen.

2. *Suppurative Effects (Cystitis, Ureteritis, Pyelitis, Nephritis).*—Every pyogenic microbe can cause suppurative inflammation of the urinary tract when it is inoculated directly into the mucous membrane, either through a *solutio continui*, or when it is deposited from the blood. *Bacterium coli* cannot, even if it is decidedly pyogenic, attack the intact mucous membrane of the bladder, whilst pyogenic urea-decomposing microbes are sure to produce a suppurative inflammation, if they for a time only are able to render the urine ammoniacal.

The best proofs of this are the cases of primary pyelitis. Formerly they were generally considered to be cases of cystopyelitis, when the urine was purulent and micturition frequent and painful. Cystoscopic examinations frequently show that there is no cystitis in the majority of cases of primary pyelitis, and he believes from an examination of 40 cases that when the bladder is healthy we have to do with *bacteria coli*; when the bladder is also affected we must always have to do with urea-decomposing pyogenic microbes.

In 9 cases where the diseased kidney was removed, the symptoms of cystitis ceased immediately after the operation, and the urine became normal. Eleven cases were primary pyelonephritis with ammoniacal urine. In none was there retention, but there was a diffuse cystitis in each, which did not disappear after removal of the primary disease by nephrectomy, but only after local treatment of the bladder.

In cases of prostatic hypertrophy with partial or complete retention, if the urine is infected (without lesion) by *bacteria coli*, a bacteriuria will result; if infected with urea-decomposing microbes, cystitis will rapidly develop; patients with total retention begin suddenly to pass their water spontaneously, those with partial retention have frequent and painful micturition.

Should the mucous membrane of the bladder, however, become injured by an instrument cystitis may set in, whichever of the two microbes is present, if it be pyogenic.

While the majority of cases of primary pyelitis are due to *bacteria coli*, the opposite is the case with cases of primary cystitis.

When in cases of cystitis you meet with *bacteria coli* in company with urea-decomposing microbes, he believes as a rule the latter are the cause of the cystitis, for the latter disappear under nitrate of silver together with the cystitis, while the *bacteria coli* remain.

He believes that *bacterium coli* is innocuous to the healthy mucous membrane, and explains the occurrence of coli pyelitis as due in a majority of cases to lithiasis, calculus, and consequent wounding of the mucous membrane of the pelvis, giving the *bacterium coli* if present a port of entry. After calculus, floating kidney with tendency to torsion or incarceration. Tumors are seldom the occasion.

As to the calculous pyelitis he notes another difference between the coli bacilli and the urea-decomposing microbes. Under the action of the latter the concretions grow rapidly from phosphatic deposit, while under the influence of the former they may even crumble rapidly, that is, the *bacteria coli* may have a litholytic influence on calculi.

Proofs that the bacterium coli is more benign than the urea-decomposing microbes.

1. *The patient's general condition.*—In pyelitis calculosa with coli infection the patient's general health may be excellent, with the urea-decomposing microbic infection he presents a septic condition.

2. *Examination of urine.*—In coli pyelitis the quantity of albumin is small, corresponding to the quantity of pus, rarely casts, no renal epithelial cells. In ammoniacal pyelitis the opposite picture is present.

3. *Changes found on operation.*—Under the bacilli coli but little kidney change, marked changes in the kidneys under ammoniacal pyelitis.

4. *The effect of nephrotomy.*—In over 20 cases of coli pyelitis, after large incision of kidney and removal of calculi, pus, and urine, with simple washing of wound, closed by suture, healed by first intention. This same thing he tried twice in the case of other suppurative microbes, but lost first patient by death, and only saved the second by nephrectomy.

5. *Experiments on animals.*

The reasons why the importance and frequency of bacteria coli has been over-estimated are:

1. Because such an enormous number are found in the human body during life (in the intestines and anus), and they consequently easily pass into the urine.

2. Bacteria coli, on account of their rapid growth, hide and choke the real pathogenic microbes so that these later are hardly to be discovered with our present means of investigation.

3. Bacteria coli, a few hours after death, can completely inundate the urinary tract and disguise the infection, which during life was the real cause of disease.

C. TREATMENT. *Prophylaxis.*—The greatest number of urinary infections originating from the urethra are caused by surgical interference, examination by cystoscope, catheter, lithotrite, etc.

To obviate the evils thus arising the author frowns upon the use of vaselin as a lubricant, as this is not washed away by irrigating fluids, and while adhering to the mucous membrane also imprisons the microbes, so he advocates sterilized olive oil or glycerin. Then steps should be taken to kill the microbes which have been introduced, especially in cases of prolonged examination. The best method of doing this according to the author is after examination to introduce by catheter into the empty bladder 40 to 50 c. c. of a two per cent. solution of nitrate of silver, leaving it in the bladder for three or four minutes, then to wash out the bladder with sterilized water, and in order to avoid the pain which might ensue by the silver nitrate coming in contact with the urethra, close the catheter with the finger on removing it.

Therapy.—The first essential to effective therapy is an exact diagnosis of the seat of the disease. This may be done by the cystoscope, by the ureter catheterization, etc., in fact by all the methods for investigation of the urinary tract. Especially should the differential diagnosis between cystitis and pyelitis be made. For simple pyelitis he administers 2 liters of distilled water daily, and 3 or 4 grs. (?) (grams?) of salol in the twenty-four hours. Obstinate cases are put to bed and a Pezzer catheter placed à demeure. Failing in this he advises exploratory lumbar incision.

III —C. MANSELL MOULLIN, M.D., F.R.C.S., believes that bacteriuria merges by indefinite steps into slight suppurative cystitis. If the germs acquire greater virulence, or the wall of the bladder be injured, inflammation sets in at once so that no line can be drawn between bacteriuria and suppurative cystitis.

He agrees with the Guyon School that the colon bacillus is the organism most frequently present in septic disease of the urinary organs. Of course, the fact that it is the most frequently present is no proof that it is the cause to the exclusion of others, and it is highly probable that cases of mixed infection are the worst.

IV.—MAX MELCHIOR, M.D., Copenhagen, drew conclusions from 52 cases examined bacteriologically. These he divides into: (1) pure bacteriuria; (2) cystitis and cystopyelitis; (3) cases where the seat or origin of the trouble must be sought in the upper part of the urinary tract, the kidneys or the pelvis.

1. Of bacteriuria there were four cases, three in women, with a pure culture of bacterium coli, one in a man with diplococci. All had acid urine and a diffuse opaque appearance. Under the microscope were found enormous numbers of bacteria, epithelial cells in small numbers, often were crystals of uric acid and oxalates, and occasionally a few leucocytes.

Of the three cases of coli bacteriuria, two were of renal origin. One a young girl, had symptoms of nephrolithiasis; the second occurred in a baby of ten months, directly after scarlatinal nephritis. The third was in a young woman with chronic endometritis during an attack of influenza. This latter was vesical in origin, and abated in a week under injections into the bladder of a 1-500 solution of silver nitrate. The fourth case was in a young man with chronic urethritis and prostatitis, following sexual excess; was due to the diplococcus ureae liquefaciens, nevertheless, the urine was acid. The same microbe was found in the secretion expressed from the prostate. The bacteriuria kept recurring until the prostatitis had subsided.

2. The second group contained 30 cases of cystitis, and 7 of cystopyelitis, 12 in women, 25 in men. The bladder in all was the starting point of infection.

The bacteria found were: bacterium coli, 16 times, 14 times in pure culture; diplococcus ureae liquefaciens, 10 times, 8 times in pure culture; the proteus Hausser, 6 times, 3 times in pure culture, and the staphylococcus pyogenes aureus, 3 times, twice in pure culture.

In the 7 cases with pyelitis, the bacterium coli was found twice, and in the remaining 5, urea-decomposing microbes were found exclusively.

In most cases, infection from the urethra could be proved, from introduction of an instrument, urethritis, stricture, the bladder being susceptible to infections from cancer, calculus, retention, trauma, etc. In 5 cases only was the cystitis spontaneous, in all 5 the urine was acid, all were due to the coli bacillus which appeared in pure culture at the beginning of cystitis. All 5 cases occurred in women, the cystitis was proven by cystoscopic examination, kidney infection could be excluded. They all point to auto-infection through the urethra. That such auto-infection may take place is supported by the fact that the coli bacillus is abundantly found about the vulva and in the vagina of healthy women, and may even appear in the normal urethra.

Among the 37 cystites, 16 were ammoniacal, and 21 had an acid reaction. Among the latter the coli bacillus appeared 15 times, 14 in pure culture, and in the remaining 5 cases urea-decomposing microbes were found exclusively, and yet the urine was acid. In one case of acid cystitis in a woman, the first examination showed a pure culture of the coli bacillus, and yet one week later this micro-organism had entirely disappeared, and a pure culture of urea-decomposing diplococci was found, and yet the cystitis was not altered in character, the change had been caused by instrumentation.

3. Where the kidney was the starting point, 11 cases in all, 4 were tuberculous,

Of the remaining 7 cases, 3 were coli pyelitis with secondary cystitis, 1 coli cystitis with renal infection, and three were due to urea-decomposing microbes.

The author accepts the views previously expressed as to routes of infection of the urinary tract, he emphasizes the fact that 3 cases of coli pyelitis caused cystitis by descent, as was proven by the cystoscope, and he draws the following conclusions:

1. Bacterium coli is the most frequent cause of "bacteriuria," and always produces acid urine.
2. Besides being produced by bacterium coli, "bacteriuria" may, for example, be caused by urea-decomposing microbes, which may even show acid urine.
3. The "bacteriuria" may be renal or vesical; in the latter case the prostate sometimes plays an important part as the focus of the infectious substance.
4. Bacterium coli is the microbe most frequently found in cystitis, pyelitis, and suppurative pyelonephritis.
5. In a large proportion of cases cystitis is combined with acid urine.
6. Even urea-decomposing microbes may produce cystitis with acid urine.
7. In women spontaneous coli cystitis arising from urethral auto-infection is not seldom found.
8. In cystitis, bacterium coli may be superseded by other urine-decomposing species.
9. Bacterium coli may produce apparently spontaneous cystitis and pyelitis arising from hematogenous infection from the alimentary tract.
10. Pyelitis produced by bacterium coli is not seldom complicated with descending secondary cystitis.
11. Urea-decomposing microbes may sometimes produce pyelonephritis without any complication of cystitis, and with acid urine.

CUTANEOUS DISEASES.

A New Case of Cutaneous Tuberculosis.—MENEAU (*Journal des Mal. Cut. et Syph.*, vol. 10, p. 200, 1898).

A girl nine years old, with a family history of glandular disease, was under the author's care for swollen cervical ganglions, with a plaque of tubercles under the left ear, and a scar under the right ear. There are traces of bone tuberculosis. For the last three years a papular eruption has appeared on her body at different periods. Last year the upper and lower extremities and the face were covered with indolent, round, hard, nodular papules, the size of a head of a pin to a millet-seed. Gradually the papules became covered with crusts, underneath which a round, deep ulceration could be seen. At this period the papule was surrounded by a reddish border. When the lesion healed a round, whitish scar was left. There was no tendency to grouping. The author prefers the name of disseminate serofulosis to tuberculides, as in nearly all cases we find what formerly was known under the name of strumous diathesis. The point of departure is according to Dubreuilh's histological examination of the sections in the blood-vessels, the follicles and glands being particularly affected owing to the large number of blood-vessels around these organs.

Therapeutic Reports

This department has been opened for a free discussion of the merits of preparations offered for the use of the profession. Contributions are solicited as for the JOURNAL'S Original Communications.

SURGICAL CONVALESCENCE, WITH REPORT OF BLOOD COUNT IN TWENTY CASES.

BY STUART MCGUIRE, M.D., RICHMOND, VA.,

Professor of the Principles of Surgery in the University College of Medicine; Surgeon to St. Luke's Hospital and the Virginia Hospital, Richmond, Va.

Several months ago I received a visit from an agent of the M. J. Breitenbach Company of New York, manufacturers of Gude's Pepto-Mangan, who stated that his firm was anxious for me to test their preparation on surgical cases and to publish the results. I agreed to do so, provided I be allowed to utilize the first twenty major cases on which I operated, and that his company supplied me with the drug and paid the cost of the necessary blood-counts.

I append a report of twenty cases. Eleven of them were private patients at St. Luke's Hospital and nine were clinic cases at the Virginia Hospital. The histories are taken from official records, augmented by the blood-counts made by Dr. M. D. Hoge, Jr., Professor of Pathology in the University College of Medicine.

When it is remembered that the patients were all confined to bed; that they were recovering from the effects of serious surgical operations; and that they were subjected to the depressing influence of hospital life, the average increase of red blood-corpuscles is remarkable. Had the cases been selected, and only anemic patients tested, the results would have been even showier.

CASE I.—Miss E. G., aged 20, patient St. Luke's Hospital. Struck on back by windlass of well four months prior to admission. Laminectomy and removal of carious bone and clotted blood. Gave Gude's Pepto-Mangan 60 days. First count, 1,500,000 red corpuscles to the cubic millimeter. Second count, 3,300,000 to the cubic millimeter. Rapidly improving and recovery assured.

CASE II.—Mrs. M. K., aged 29; patient St. Luke's Hospital. Cystic disease of ovaries and chronic inflammation of appendix. Double Beattie-Tait, and appendectomy. Gave Gude's Pepto-Mangan 20 days. First count, 3,950,000 red corpuscles to the cubic millimeter. Second count, 4,000,000 to the cubic millimeter. Discharged well.

CASE III.—Miss C. H., aged 22; patient St. Luke's Hospital. History of frequent attacks of hepatic colic—no jaundice. Opened the gall-bladder and removed a calculus one inch in diameter. Gave Gude's Pepto-Mangan 28 days. First count, 3,940,000 red corpuscles

to the cubic millimeter. Second count, 3,000,000 to the cubic millimeter. Bile still escaping from fistula, but patient otherwise well.

CASE IV.—Miss A. N., aged 32; patient St. Luke's Hospital. History of sudden peritonitis accompanied by profound sepsis. Exploratory incision revealed a pedunculated fibroid tumor of uterus, gangrenous on twisted pedicle. Myomectomy. Gave Gude's Pepto-Mangan 30 days. First count, 3,800,000 red corpuscles to cubic millimeter. Second count, 4,000,000 to the cubic millimeter. Good recovery.

CASE V.—Miss E. J., aged 17. Patient St. Luke's Hospital. Spinal irritation from a fall. Anemic, emaciated, and confined to bed for more than a year from contraction of hamstring muscles. Electricity, massage, and passive movements. Gave Gude's Pepto-Mangan 20 days. First count, 3,650,000 red corpuscles to the cubic millimeter. Second count, 4,425,000 to the cubic millimeter. Her menses, which had been suppressed, became regular. She fattened 20 pounds, and left the hospital walking with a cane.

CASE VI.—Miss B. T., aged 21. Patient St. Luke's Hospital. Retroverted uterus, bound down by adhesions. Opened abdomen, freed organ, and stitched it to anterior abdominal wall. Gave Gude's Pepto-Mangan 30 days. First count, 3,900,000 red corpuscles to the cubic millimeter. Second count, 3,950,000 to the cubic millimeter. Complete relief from symptoms.

CASE VII.—Master D. S. J., aged 9. Patient St. Luke's Hospital. Acute suppurative osteomyelitis of femur, tibia, and tarsus on one side and of tibia and tarsus on the other. Amputated one limb and used chisel and curette on the other. Gave Gude's Pepto-Mangan 45 days. First count, 3,720,000 red corpuscles to the cubic millimeter. Second count, 4,600,000 to the cubic millimeter. Patient discharged with well-healed stump, but incision in ankle still draining.

CASE VIII.—Mrs. H. E. W., aged forty-eight. Patient St. Luke's Hospital. Carcinoma of cervix; vaginal hysterectomy by clamp method. Had a bad liver and an irritable stomach, and though Pepto-Mangan was tried in varying doses and at different times during convalescence, she was never able to take it for more than a day or two consecutively. First count, 3,400,000 red corpuscles to the cubic millimeter. Second count not made. Case made a slow recovery, but is now well.

CASE IX.—Master R. G., aged 14. Patient St. Luke's Hospital. Compound depressed fracture of skull from a three-pound mass of type-metal falling five stories. Trephined and removed blood-clot and splinter of bone. Gave Gude's Pepto-Mangan 21 days. First count, 3,000,000 red corpuscles to the cubic millimeter. Second count, 3,800,000 to the cubic millimeter. The loss was less than anticipated, as the boy was injured while in vigorous health. Recovery rapid and complete.

CASE X.—Miss A. E. S., aged 27. Patient St. Luke's Hospital. Indigestion, constipation, and dysmenorrhea. Rapid dilatation of cervix. Gave Gude's Pepto-Mangan 34 days. First count, 3,000,000 red blood-corpuscles to the cubic millimeter. Second count, 4,400,000 to the cubic millimeter. Bowels became regular, menstruation painless, and strength and weight increased.

CASE XI.—Mrs. W. A. M., aged 20. Patient St. Luke's Hospital. Symptoms of long-existing ovarian and uterine trouble, to which had recently been added those of inflammation of the appendix. On section, the uterus was found retroverted, the ovaries cystic, the appendix impacted and adherent, and the intestines filled with lumbricoids. The uterus was righted and stitched to the anterior abdominal wall, the ovaries and appendix removed, and later a brisk purgative expelled the worms. Gave Gude's Pepto-Mangan 28 days. First count, 3,000,000 red corpuscles to the cubic millimeter. Second count, 4,310,000 to the cubic millimeter. Recovery and complete relief from symptoms.

CASE XII.—Mrs. L. A. W., aged 44. Patient Virginia Hospital. Carcinoma of breast, with extensive lymphatic involvement. Radical extirpation of disease. Gave Gude's Pepto-Mangan 45 days. First count, 4,550,000 red corpuscles to the cubic millimeter. Second count, 4,620,000 to the cubic millimeter. Case discharged in two weeks and not heard from since.

CASE XIII.—Mrs. L. J., aged 25. Patient Virginia Hospital. Pyosalpinx following puerperal septicaemia. Opened abdomen, freed numerous intestinal adhesions, enucleated

pus-tubes, and removed uterus by Baer's method. Gave Gude's Pepto-Mangan 28 days. First count, 3,410,000 red corpuscles to the cubic millimeter. Second count, 4,100,000 to the cubic millimeter. Perfect recovery.

CASE XIV.—Master J. F. S., aged 11. Patient Virginia Hospital. Tuberculosis of the knee and femur, with secondary infection and profuse suppuration. Amputation. Gave Gude's Pepto-Mangan 24 days. First count, 4,005,000 red corpuscles to the cubic millimeter. Second count, 4,300,000 to the cubic millimeter. Rapid recovery and marked constitutional improvement.

CASE XV.—Mrs. A. A., aged 25. Patient Virginia Hospital. Diseased ovaries and retroverted uterus. Double ovariectomy and ventro-suspension of uterus. Gave Gude's Pepto-Mangan 30 days. First count, 4,300,000 red corpuscles to the cubic millimeter. Second count, 4,200,000 to the cubic millimeter. Patient a hypochondriac and still complains.

CASE XVI.—Mrs. E. B., aged 36. Patient Virginia Hospital. Cirsoid aneurism of scalp and forehead causing agonizing pain from involvement of orbit. Ligation of right common carotid artery. Gave Gude's Pepto-Mangan 16 days. First count, 4,400,000 red corpuscles to the cubic millimeter. Second count, 4,100,000 to the cubic millimeter. Force of pulsation diminished and pain completely relieved.

CASE XVII.—Mr. P. S., aged 51. Patient Virginia Hospital. Suppurative osteomyelitis of tibia. Amputation of limb. Gave Gude's Pepto-Mangan 28 days. First count, 3,400,000 red corpuscles to the cubic millimeter. Second count, 3,700,000 to the cubic millimeter. Recovery, with marked improvement in general health.

CASE XVIII.—Miss N. C., aged 30. Patient Virginia Hospital. Rapidly growing fibroid tumor of uterus. Complete hysterectomy and removal of mass weighing forty pounds. Gave Gude's Pepto-Mangan 30 days. First count, 3,700,000 red corpuscles to the cubic millimeter. Second count, 3,750,000 to the cubic millimeter. Intercurrent attack of pneumonia, which retarded recovery and interfered with the regular administration of medicine.

CASE XIX.—Mrs. S. S., aged 50. Patient Virginia Hospital. Carcinoma of the breast. Amputated organ and dissected out adjacent lymphatic glands. Gave Gude's Pepto-Mangan 10 days. First count, 4,200,000 red corpuscles to the cubic millimeter. Second count, 4,250,000 to the cubic millimeter. No report from the case since discharge.

CASE XX.—Mrs. S. J., aged 31. Patient Virginia Hospital. History of three acute attacks of appendicitis. Thin, anemic, and nervous. Appendectomy. Gave Gude's Pepto-Mangan 26 days. First count, 2,644,000 red corpuscles to the cubic millimeter. Second count, 3,950,000 to the cubic millimeter. Gained fifteen or twenty pounds in weight and is completely well.—(*U. Med. Semi-Monthly.*)

FOUR MONTHS' BLOOD CURE OF LUPUS VULGARIS WHICH HAD GROWN STEADILY WORSE FOR THIRTY-SIX YEARS.

BY G. J. BIGGS, M.D., STAMFORD, CONN.

Mr. Baldwin, aged 79, was entered as patient in Sound View Hospital on the 8th of June, 1898; exhibiting a deep lupus vulgaris which involved almost the entire nose, extending down under the left eye and cheek, and also involved the nasal tissues, internal and external as far back as to the middle anterior nares. Said that his sufferings had been so constant and severe that opium, morphia, or any of the anodynes in use had little or no effect, and the only relief he could obtain, partially and temporarily, was by taking a large drink of whisky or brandy, which, being a temperate man, he was unwilling to do. The present condition began thirty-six years ago, with a little pimple which would not yield to the usual treatments.

The patient's vitality, though it had been amazing to his friends these many years, was now so much lowered, together with his great age, that I saw it necessary to build him up for a while before operating. He was therefore put on a blood and alterative treatment; a tablespoonful of bovine milk every three hours, and a quarter grain protiodide of mercury also at every three hours. This treatment was continued for ten days, when the protiodide was discontinued, and Barclay's preparation of gold, mercury and arsenic bromide was substituted, ten drops three times a day—this to combat a hereditary syphilitic taint. After thus building up the patient as far as possible, on the 20th of June, assisted by Drs. Hoyt and Miller, using chloroform anesthesia, with a sharp dermal curette, I removed the entire mass of diseased tissue as thoroughly as I could. Following this I touched up the entire surface and edges of the wound with the Paquelin cautery; depurated the parts with the bovine-peroxide reaction washed out with Thiersch; dried and dusted over the entire surface with lactate of silver; over this placed iodoformized gauze and a bandage. Changed the dressing after twenty-four hours, and for two weeks further, redressed as before three times a day. At the end of this time a large crust covering the entire sore came away, leaving a healthy granulating surface. After that, the wound was cleansed daily with bovine-peroxide reaction washed out with Thiersch, followed by spraying with pure bovine milk; strips of oiled gauze being laid over to prevent evaporation of the bovine milk.

The wound now began to heal rapidly, and by August 22d was apparently healed except a minute point on the left side of the nose, which I continued to watch and dress daily as before. September 1st, I noted a little development which had escaped the curette and cautery on the upper part of the nose; also, one on left cheek at the lower margin of the cicatrix; and one on the right ala of nose. This necessitated some more thorough scraping under chloroform; the suspicious points were removed, the wound depurated, as usual, with bovine-peroxide washed out with Thiersch, and a dry dressing of boric acid and acetanilide applied. This dressing was not touched for a week; then, having loosened up, it was removed easily, leaving the points that had been curetted in a healthy granulating condition. Depuration and bovine dressing were resumed twice daily as before and continued to October 23d, and on the 24th, patient was discharged cured; having passed two weeks of probation since the last point of ulceration had healed, without developing any sign of renewed outbreak, or of such flesh as would indicate its possibility.

There are remarkable points of interest that should be noted in this case, over and above the perhaps unparalleled demonstration of blood power to vitalize the helpless tissues which disease had for thirty-six years devoured faster than medicine and surgery could remove them: (1) that immediately after the first dressing with blood flowing the first and extreme operation, the long and unintermitted agony of so many years ended, and in forty-eight hours all pain ceased and ceased permanently; the removal of the septic excretion having served to let in the supplied vital element to do its healing work on the tortured nerves; (2) the unheard-of rapidity of healing; (3) the smoothness of the cicatrix, soft, pink and healthy, its outline, or demarcation from its normal skin, being almost undiscernible.

POST GONORRHEAL ENDOCERVICITIS TREATMENT IN TWO CASES.

Both patients were young women. In both instances infection was traced from them to men with whom they held sexual relations, but repeated examinations after a period of treatment with anti-septic douching and topical applications to the urethra and cervix failed to reveal the presence of gonococci. The only organisms discoverable by staining methods were the diplococci and other organisms commonly inhabiting the female genital tract. The patient's complaints were of an annoying discharge and pain in the side and back with excessive cramp at the periods.

Examination showed a slight degree of prolapse in both, due to congestion of the uterus. In one instance there was ovaritis on the left side and salpingitis on the right; in the other,

some tenderness over the left ovary. After a period of treatment with glycerine suppositories and tampons saturated with ichthyol-glycerine (20 per cent.) which relieved the congested condition somewhat, were directed to use the uterine wafers of Micajah & Co., placing one as nearly as possible at the cervix every third night after the douche for a series of ten applications. The wafers produced considerable discharge and some exfoliation of epithelium but the latter soon ceased. The wafers were stopped after six were used in the second case when the leucorrhea and pelvic congestion were markedly reduced. So much could not be expected from the second case without removal of the diseased tube which was refused. There was slight improvement in the condition of the uterus and ovary when the patient disappeared. Considering the habits of these women, their betterment was gratifying.

ON THE DISINFECTANT VALUE OF KRESAMIN (Ethylenediamine-Trikresol) AND ITS THERAPEUTIC EMPLOYMENT IN DISEASES OF THE SKIN.

BY DR. HEINRICH ECKSTEIN,
Ex-Assistant Physician to the Clinic.

(From the University Dermatological Clinic at Breslau; Abstracted from *Therapeutische Monatshefte*, Berlin, April, 1898.

The results of our experimentation may be summarized as follows:

1. In accord with the experiments of Schäffer, we have found Kresamin to be a disinfectant of high value, and superior to the other preparations of the phenol series that we have tried.

2. Its disinfectant action upon the tissues and its powers of penetration are very marked.

3. Besides these points, its great blandness gives Kresamin an especial practical advantage.

4. Kresamin is very useful in many dermatoses, especially in the treatment of eczema, of pustular and abscess-forming dermatites, sycosis, leg ulcers, and especially in lupoid surfaces of the extremities after operative procedures.

Kresamin may be employed as a salve or a plaster-muslin, but is best used in solution, as a bath or as a wet dressing.

KRESAMIN 25 PER CENT. *

is a clear, watery, yellowish solution containing 25 per cent. of Trikresol and 25 per cent. of Ethylenediamine.

ADVANTAGES.

Slight toxicity, extraordinary disinfectant power, especially in the depths of the tissues (far greater than that of other disinfectants, as carbolic acid), great penetrating power, absolute non-irritation, and sedation to inflamed tissues.

* A 1 per cent. Kresamin solution is prepared by adding 4 parts of the 25 per cent. solution to 96 parts of water and shaking until the solution becomes clear. To make a 2 per cent. Kresamin solution 8 parts of the 25 per cent. solution should be shaken up with 92 parts of water.

** The statement made in the April number of the "*Therapeutische Monatshefte*," 1898, that for a wet dressing a concentration of 1 to 4000 should be employed, means that 1 gram (15.4 grains) of Trikresol and 1 gram (15.4 grains) of Ethylenediamine are to be diluted with 4000 parts of water. Since our solution, however, is a 25 per cent. one, and contains only 0.25 gram (3.45 grains) each of Trikresol and Ethylenediamine to each gram (15.4 grains) of Kresamin, 4 parts of this 25 per cent. solution must be added to 4000 parts of water, which is equal to 1 part of the solution to 1000 parts of water.

APPLICATIONS.

Excellent for the treatment of Dermatitis, Eczemas, and Acute Inflammatory Affections of the Skin. Apply as a moist dressing in the strength of 1 part of the 25 per cent. solution to from 1000 to 100 parts of water,** or as a salve, 10 per cent. Kresamin, 10 to 50 parts adeps lane up to 100 parts. For Syphilis apply a moist Kresamin dressing of $\frac{1}{2}$ to $1\frac{1}{2}$ per cent. solution. Torpid Ulcerations, especially of the leg, Leprous Ulceration, and Infected wounds are to be treated in the same way. For Lupoid areas of the extremities, after curetting or cauterization, protracted baths of 1 part of the 25 per cent. Kresamin solution to 1000 parts of water** up to a $1\frac{1}{2}$ per cent. Kresamin solution are especially suited and recommendable.

Kresamin plaster-mu-lin, which is markedly adhesive and possesses great softening powers, may be employed with great advantage in those cases in which the salicylates, as the salicylic soap plaster, are applicable.

A TONIC AND RESTORATIVE IN THE TREATMENT OF SYPHILIS.

In the *Journ. des Mal. Cut. et Syph.*, No. 5, Dr. Fournier directs the attention of physicians to the great utility of somatose in the treatment of syphilis. Aside from those cases in which the administration of this concentrated nutritive preparation is indicated for general reasons as a means of promoting a gain in strength, there are a number of special indications which come up during a course of specific treatment. Thus, for example, a class of cases is frequently met with which are very troublesome owing to the difficulty of feeding the patient on account of the local lesions in the mouth and pharynx, either through the occurrence of a mercurial stomatitis or in consequence of the extension of the syphilitic process from the mucous membrane of the mouth to that of the pharynx. In such cases, the author often succeeded in maintaining the strength of the patient for a number of weeks by means of a milk diet and the administration of somatose. Excellent results were also derived from this product in conditions where dyspeptic disturbances, perhaps attributable to the internal use of mercurial preparations, had given rise to anorexia. It was found advantageous to administer a tea-spoonful of somatose thoroughly dissolved in milk, broth, gruels, etc., four times daily, as an appetizer and invigorating food in the treatment of these patients.

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Original Communications.

A PAPULAR, PERSISTENT DERMATOSIS: REPORT ON AN UNDESCRIBED DISEASE.¹

BY JAS. C. JOHNSTON, A.B., M.D.,

Dermatologist to N. Y. Lying-in Hospital; Physician for Class of Skin and
Venereal Diseases, Presbyterian Hospital.

THE case which forms the subject of this paper has been presented to both of the Dermatological Societies of the City of New York, and has been repeatedly examined by the members. The unfamiliarity of the clinical type is apparent from the discussion reported in the JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES, for October, 1895, page 401. The difficulty experienced in reaching a diagnosis may be appreciated when such divergent diagnoses have been tentatively made, and afterward maintained, as dermatitis herpetiformis, sarcoma, prurigo, leucemia cutis, and neurofibroma. My disagreement with all these views is founded upon a study of the disease extending over a period of eighteen months, during which time I have seen the case at intervals of not more than a fortnight. My reasons for such a stand will appear further on.

History.—The patient, a woman of fifty-two, was born in Ireland, and emigrated to this country in 1885. Her personal health has been perfect; there is no family history of disease of any kind. Her mother is alive; her father died of old age at eighty-six. She has borne two

¹ Read before American Dermatological Association, June, 1898. For discussion see this Journal, September, 1898.

children, both of whom are alive and well. The statement she makes, regarding the eruption, is as follows: It made its first appearance some

FIG. 1.



Distribution of papules on face and arms, older lesions near elbows.

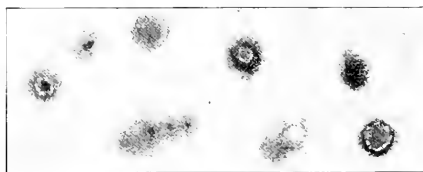
ten years since The face was first attacked, arms and legs being involved later. Once present, she is unable to recall the absolute disappearance of a single lesion. The papules were at first flat red, and bled readily

on slight injury. Four years, or more, ago the thickening on the arms began. The individual lesion took on a more vigorous growth, becoming larger, flatter, harder, and more deeply embedded in the skin. This exacerbation was due, she thinks, to the treatment pursued for an attack of "prickly heat" which made its first appearance at the seashore. The skin became rough, fissured, and finally greatly thickened.

The patient was first seen by me at the Skin and Cancer Hospital in May, 1895, in Dr. G. H. Fox's service. I made then a diagnosis of dermatitis herpetiformis in spite of the history and absence of characteristic grouping, but soon abandoned it. (The eruption as it appeared at that time is shown in the accompanying photographs.) It has changed very little in my knowledge, so little in fact, that a description of it at that period fits pretty accurately now. (Figs. 1 and 2.)

The disease is disseminated over the face and limbs alone. The

FIG. 2.



Showing lesions natural size. Early papules are seen to the left; late, horny lesions in lower right-hand corner.

body-surface is free. On the face, it occupies all the central portion, the forehead, cheeks, nose, lips, and chin; on the upper limbs, the backs of the hands and fingers, the extensor surface of the forearm and lower half of the upper arm. The extensor surface of the legs and dorsum of the feet are dotted with sparsely scattered lesions.

The eruptive elements are vesicopapules. The presence of the tiny vesicle, occurring in a majority of them, was unsuspected until the histological examination was made. Since then, they have been demonstrated even in the oldest lesions by the exudation of clear serum following a puncture with a fine needle. The papules vary in size from a pin-head to a long diameter of one-third of an inch; they are circular or ovoid in shape with rounded tops, project above the surface to a maximum height of an eighth of an inch, and are extremely hard to the touch. They begin subcutaneously and involve the epidermis only

after a considerable length of time. The color of the newer papules on the limbs is rose-red, becoming a grayish-white from thickening of the horny layer later on. On the face the red is deeper and persists. Certain of them have the appearance of common warts where the cornification reaches its greatest development. (One of the verucca-like growths is seen on the back of the left wrist in the picture.) The papules are always discrete and immovable on their bases. Three have been excised at different times and in every case there has been a return with a more rapid and greater development. The largest of the lesions, near the left elbow, is one of these recurrences. Redevelopment involves not only the scar but the stitch-holes as well. Apparently, there exists no predilection for the site of the hair-follicles.

Subjectively, there is no pain on pressure, but itching is a marked symptom. It is extremely violent, so distressing as to prevent sleep and interfere with daily occupations. The consequent scratching has, of course, left its marks upon the surface in the shape of a diffuse rough thickening, Brocq's "lichenification" with its accompanying "quadrillage" or deepening of the lines of the skin. Lichenification is not present on the face and disappears in the upper part of the limbs. I have noticed from time to time, chiefly on the neck and upper chest, oval, erythematous spots, an inch in diameter, attended with itching, which have disappeared in a short while. Pruritus has invariably accompanied a lesion's growth, never preceding it. Except this, there is no paresthesia of the surface, no tenderness of superficial nerve-trunks. The glands are not enlarged, the urine contains nothing abnormal, blood examination reveals nothing worthy of note.

The therapeutics employed may be of some interest. Aside from hygienic measures, I have employed, locally, the strongest antipruritics, camphorated-oil for the face, camphor-carbol ointment (aa 5i—5i) on the limbs. Internally, after the complete failure of pilocarpin, I have given arsenic in Asiatic pills to one-third of a grain daily, decreasing the dose and running it up again from time to time. Under this, some of the lesions have decreased in size without disappearing entirely, the itching is less annoying and lichenification less pronounced than formerly.

Histology.—Three papules, in various stages of development, have been excised for study. They were hardened in alcohol, Mueller's and Flemming's solutions, and the sections stained with numerous reagents, hematoxylin-eosin, picro-carmin, saffranin, Unna's polychrome methylen-blue and orcein. They have been examined by Drs. Fordyce and Elliot and Dr. Wm. H. Welch of Johns Hopkins Uni-

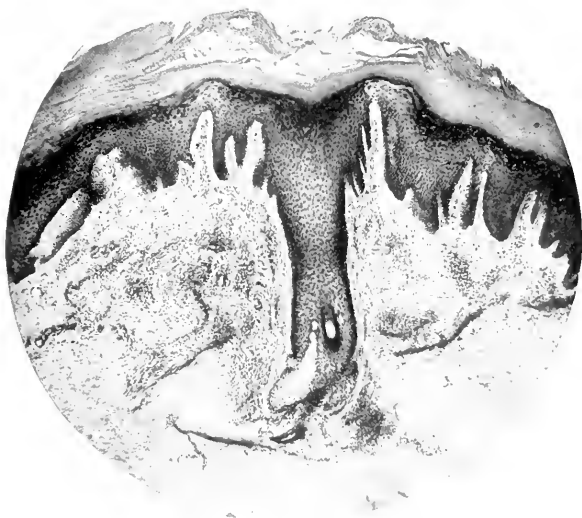
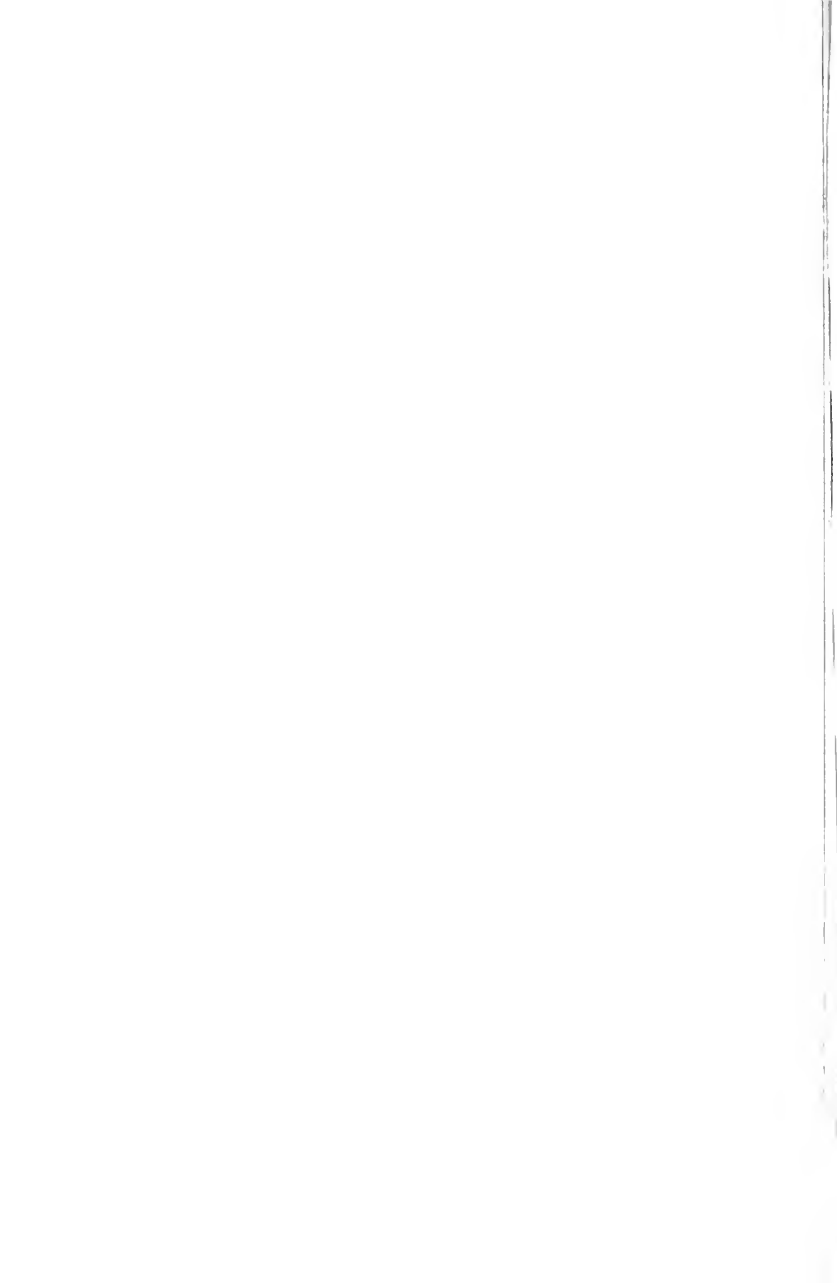


FIG. 3.—Low-power view of entire papule, showing thickening of horny and granular layers, increase in rete and cell-infiltration about vessels of corium. The beginning vesicle is seen in the separation of the horny layers.

Photomicrographs by Dr. J. A. Fordyce.

ILLUSTRATING DR. JOHNSTON'S ARTICLE, ON A PAPULAR, PERSISTENT
DERMATOSIS



versity. Their opinions are now substantially agreed with mine.

The pathological process is inflammatory, and begins about the vessels in both layers of the corium. In the papillary portion, the infiltration constantly appears diffused through the involved area; in the reticular part, the cells are aggregated about the vessels and later, about the nerve-trunks. I have been unable to secure a papule early enough in its development to state in which layer exudation takes place first. Inference is in favor of the lower papillary portion. The process spreads in every direction but seems limited by the subcutaneous fat. The epidermis is, of course, secondarily involved. Its thickening appears to be a slow development, for in the recurrences after excision, it seems slight after six months. Vesiculation which Dr. Welch regards as an essential feature but which can hardly be so considered, in view of its occurrence in other affections not naturally vesicular, begins in the stratum mucosum in the center of each papule. The vesicles never cover the whole diseased area and increase in size by destruction of the lower epidermis. The layers of prickle-cells become infiltrated with leucocytes and the cells undergo a process of granular degeneration, the nuclei shrivelling and the protoplasm losing its power to take up stains. The granular material resulting finally disappears and the vesicle is left roofed by the horny layer with the corium for a floor. Underneath, its limit is usually clearly demarcated, though not always.

A fully developed lesion shows these changes. The horny layer is enormously developed, forming one-half, or more, of the epidermis. The stratum lucidum has disappeared and the stratum granulosum is increased to three or four layers of cells, whose keratohyalin granules stain very deeply. The mucous layer is thickened, its proliferation shown by the increase in length and diameter of its interpapillary projections. Its infiltration by leucocytes has been spoken of. It is easy to see that these proliferative changes are secondary and directly due to the congestion and edema present in the corium. How the vesiculation is brought about, and why it begins in the epidermis are questions more difficult to settle. The cavity is probably formed by epithelial degeneration and filled with serum and leucocytes from the edema and infiltration of the corium as in *prurigo Hebra*. In hardened specimens, the vesicular contents consist of threads of fibrin intermingled with granular detritus and white blood-corpuscles, polynuclear leucocytes, lymphocytes, and eosinophiles, the last in considerable number.

A diffuse cellular infiltration and edema occupy the papillary layer of the corium, the former consisting of the same elements from the blood mixed with proliferated connective tissue and plasma cells. Where the cells are aggregated, it is seen to be about a dilated capillary.

The lymphatics are also dilated and the lining endothelium of both is swollen and loosened. Increase of connective tissue is undoubtedly present, resulting from its cell proliferation. There is also evidence of Weigert's fibrinous degeneration in the region underlying the vesicle. In the reticular layer a difference is apparent: cell infiltration appears about the vessels and nerve-trunks *alone* with wide intervening areas free. The skin appendages are involved only exceptionally, and to a slight degree. The changes about the nerves seem to me most important. The cells are packed about and infiltrate the perineurium and the fibers are separated from their sheath by serous exudation apparently, for the space is clear. Such shrinkage is not usual, at least in tissues hardened in Mueller's fluid. I have seen polynuclear leucocytes between the fibers. As to degeneration in the fibers themselves, I am unable to speak because the osmic-acid preparation was not a success and I have not tried gold or palladium. A presumption in favor of it is not necessary to explain the subjective symptoms in view of the inflammatory changes about the trunks. (Figs. 3-5)

My best thanks are due my friend, Dr. J. A. Fordyce, for his kindness in photographing my preparations.

Diagnosis.—From what has been said in the introduction, the difficulty experienced in reaching a definite decision as to the nature of this disease may be appreciated.

The diagnosis of disseminate sarcoma was disposed of by the histological examination showing that the process was purely an inflammation. Leucemia and pseudoleucemia were suggested at the same time but blood examination failed to show an increase of white cells in the first case, and in the latter, there were no corroborative clinical features. The cell infiltration of the corium is not that which would characterize either disease.

Dr. Welch remarked at the time of his examination of my sections that the microscopical pictures reminded him strongly of what he had seen of dermatitis herpetiformis, but when the case was shown to Dr. Duhring he unhesitatingly excluded it from this group. Darier and Leredde (*Annals de dermat. et de Syph.*, t. VI., p. 840) have claimed a place for eosinophilia of the blood and the fluid of the bullæ among the diagnostic signs of Duhring's disease but until we are better acquainted with the character and office of these cells they had better be left out of the discussion. Granting the correctness of their observations, my patient shows no increase of these corpuscles in her blood, although there was eosinophilia of the fluid of the vesicles.

Neurofibroma may be excluded clinically by the absence of pain and tenderness on pressure, and microscopically, by the presence of

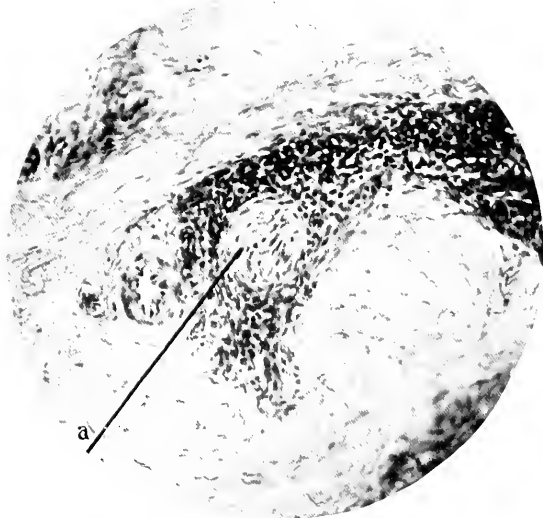


FIG. 4.—Cell-infiltration about nerve-trunk (*a*) in deeper tissues. (High power.)

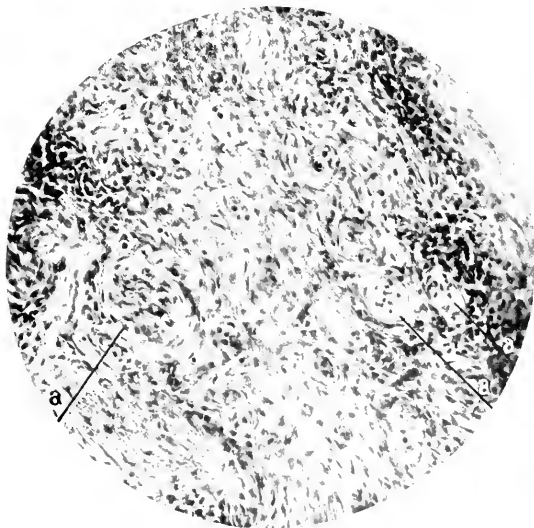
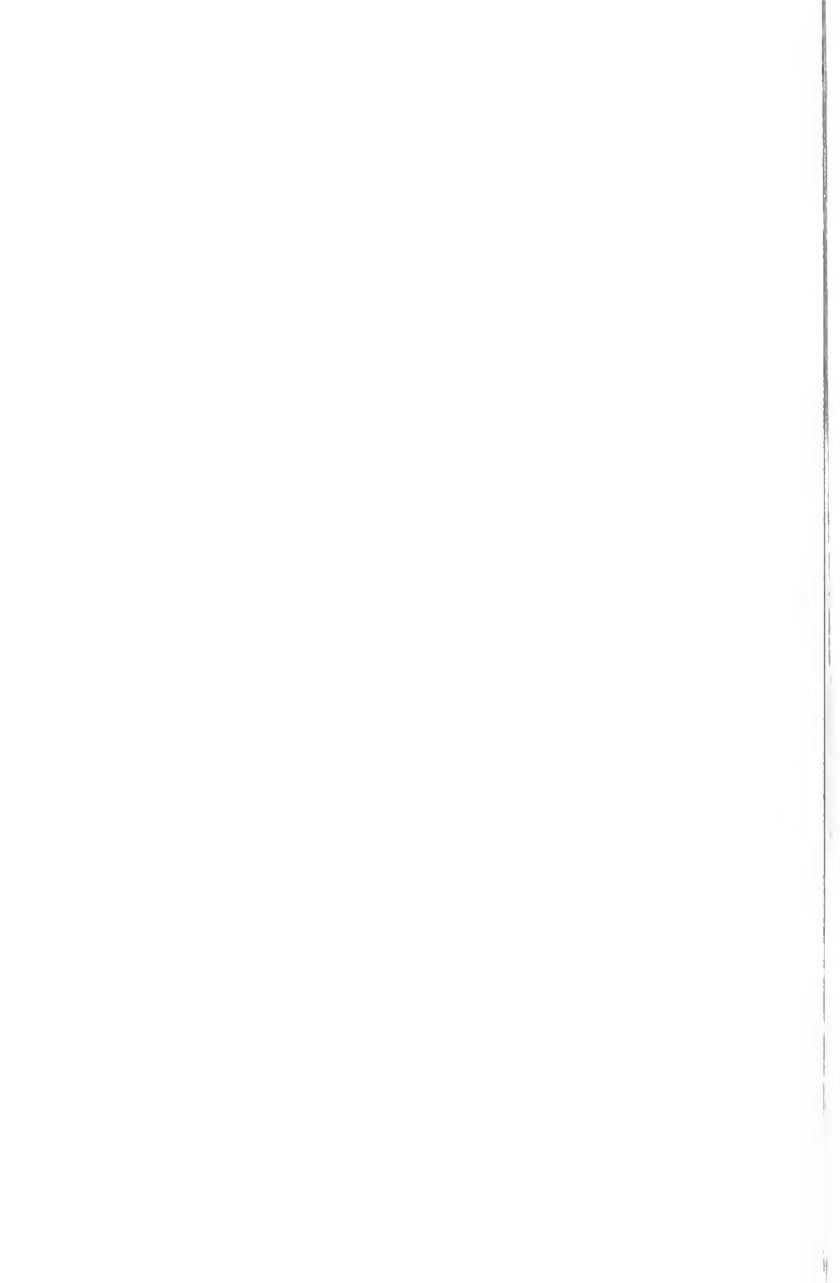


FIG. 5.—High magnification of cell-infiltration of corium; (*aa*), medullated nerve-trunks.

Photomicrographs by Dr. J. A. Furdycze

ILLUSTRATING DR. JOHNSTON'S ARTICLE, ON A PAPULAR, PERSISTENT
DERMATOSIS.



epithelial degeneration, the absence of a plexiform arrangement of connective tissue about the nerves and proliferation of their endo- and perineurium. (Kriege, *Virchow's Archiv*, vol. CVIII., 1887. Unna, "Histopathology," pp. 843-8.) True neuroma, "*tuberculum dolorosum*," exhibits a new formation of nerve-fibers. Among Unna's "Neurotic Inflammations" (*Loc. cit.*, pp. 109-154) the only one which bears even a slight resemblance, histologically, to the disease here described is *prurigo Hebra*, of the severe type, an affection practically non-existent in this country. That is certainly no argument against adoption of the diagnosis, to which Dr. Duhring and Dr. Klotz inclined somewhat, but it is difficult to conceive a *prurigo* beginning at the age of fifty, and continuing unchanged, without remission or exacerbation for years.

At the time of the presentation of the case to the New York Dermatological Society, I expressed the belief that the disease is a true neurodermitis, not, however, in the sense of Brocq's *neurodermitis circumscripta*, which shows no papules in its course. My view since that time has been modified, and while I do not wish to be understood as denying the involvement of the superficial nerve-trunks in the process, I now maintain that their implication is not a primary and a causative factor, but a part of the general invasion of the corium. At this same time, their participation determines, in all likelihood, many of the peculiar clinical features. A name matters very little in any case; coining a new one in dermatology is not to be thought of unless the need is crying. The addition of a new type of cutaneous disease is justifiable, I hope, on the grounds of my diagnosis by exclusion, the confessed unfamiliarity of the clinical picture and Dr. Welch's statement that the histopathology was new in his experience. A colored picture was hung in the Museum Exhibit of the British Medical Association, in Edinburgh, last July, 1898, and was examined by almost all of the British dermatologists present at the meeting, as well as Drs. Boeck and Unna. The only one among them who had seen any case exactly comparable was Mr. Jonathan Hutchinson who said that there was a strikingly similar plate in the collection of one of the London Hospitals, that the clinical features described were much the same, and that it had been called "*keloid prurigo*." From a clinical point of view, the name is not a bad one and if, when a new case is described, this name is used, I shall willingly withdraw the provisional term at the head of this article. The extreme degree of keratosis present is a secondary development; consequently, *keratodermia* and *keratodermitis* are not altogether apt.

CONCLUSIONS.

1. Clinically, the disease is a pruriginous, papulovesicular, persistent eruption, attacking extensor surfaces chiefly, showing lichenification, but not eczemization, the papules discrete, hard and ungrouped.

2. Histologically, the whole corium is affected by an inflammatory process of an extremely chronic character. A special and peculiar feature of the inflammation is the involvement in it of the medullated nerve-trunks of the reticular layer. The epidermis is secondarily attacked, its chief changes being great increase of the horny layer and the formation, near the center of the papule, of a vesicle resulting from degeneration of the prickle-cells.

3. The affection has not been previously described. Names hitherto suggested not having been found entirely applicable, for the present no title except a *papular, persistent dermatosis* is offered.

4. Its place in any event is with the neurotic inflammations since its closest kinship to any recognized skin affection is to Hebra's prurigo.

64 East 56th St.

A CASE OF UNIVERSAL LICHEN PLANUS FOLLOWED BY SUDDEN DEATH. AUTOPSY REPORT, AND MICROSCOPIC EXAMINATION OF THE SKIN LESIONS.¹

BY J. A. FORDYCE, M.D.,

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THE benign course of the majority of the cases of lichen planus which come under the observation of dermatologists in this country has made them doubtful regarding the nature of the cases which proved fatal in Hebra's time. It does not appear that the affection at this time is of so serious a nature as the statements of Hebra and Kaposi would lead us to believe; nor that the arsenical treatment is alone responsible for the better prognosis which we are able to offer our patients. The extent of the eruption and the serious character of the following case were so exceptional as to render it worthy of record.

The patient, a woman, aged 60, was seen by me early last year, with the most extensive and remarkable eruption of lichen planus that has ever come under my observation. The skin affection appeared in

¹ Read before the Twenty-second Annual Meeting of the American Dermatological Association, June, 1898.

March, 1897, as an itching papular eruption on the dorsal surfaces of the hands, wrists, and forearms. Within two or three months it spread over the entire body. She lost much of her hair during the existence of the eruption.

Three years ago an only daughter died and as a result of prolonged mental worry she became insane and was in this state for about a year. She suffered from delusions, and several times endeavored to leave

FIG. 1.



Showing grouped and circinate lesions on the chest and arms.

home, under the impression that some one was endeavoring to rob her house or set fire to it. I learned later from a member of her family that she had been a hard drinker since her daughter's death, and could not be entrusted with money on account of this propensity.

The eruption, when first seen, was nearly universal, involving the face, scalp, trunk, and extremities; the palms and soles not being affected. It consisted of groups of papules with circinate and gyrate outlines, with pigmented centers and surrounding areas of pigmen-

tion; single dark red, shiny, and umbilicated papules with angular outlines; scaling superficial lesions resembling psoriasis; single pigmented spots and areas, some of which showed recurring papules on or about them. (Figs. 1 and 2.)

Some of the lesions which had undergone involution* showed slight superficial atrophy.

The circinate character of the eruption was one of its most marked

FIG. 2.



Lesions similar to those in Fig. 1.

features, the individual or confluent papules inclosing areas of pigmentation, in the center of which new lesions developed. (Fig. 3.) When first seen, the eruption on the shoulders and gluteal regions strongly suggested psoriasis, and the patient had been treated for this disease at a dispensary which she had visited before coming under my observation. The eruption itched intensely, so that her sleep was interfered with, and her general nutrition suffered.

She improved under Fowler's solution for a time, but the eruption,

FIG. 3.



Enlarged view of circinate lesions on the arm, simulating a relapsing grouped papular syphilide.

a number of times, was subject to acute exacerbations, with rapid pulse, elevation of temperature, and general feeling of illness. About the middle of February she entered the City Hospital and, under increasing doses of arsenic, and better hygienic surroundings, the eruption almost entirely disappeared, leaving only the brown pigmentation. Her general health improved until about twenty-four hours before her death, when she complained of not feeling well; her pulse was found to be rapid and her temperature elevated. She was put to bed. On the following day, in attempting to leave her bed, she fell to the floor, and died a short time thereafter. An autopsy, made twenty-four hours after death, revealed the following conditions:

HEART:

Weight—11½ ounces.

Slightly increased in size.

Pericardium, smooth and glistening. Excess of fluid, 1 ounce.

Valves: Aortic, normal; pulmonary, normal; mitral, tips of forefingers, chorda thickened, edge rigid. Tricuspid normal.

Walls: Left ventricle less than ½ inch thick; seal-brown in color and flabby. Right ventricle hypertrophied, muscle pale, with yellow patches underneath endocardium.

Cavities: Left ventricle and right ventricle dilated.

Coronary arteries atheromatous.

Lesions: Dilatation of left ventricle with brown atrophy; hypertrophy and dilatation of right ventricle with fatty degeneration and infiltration.

LEFT LUNG.

Pleural cavity dry. Few adhesions at apex.

External surface smooth, pink, anthracosis moderate, firm.

Cut surface crepitates, small amount of frothy fluid in upper lobe. Emphysema, with slight edema.

Tubercles none.

RIGHT LUNG.

Slight edema.

Bronchial glands not enlarged.

ABDOMEN:

Omentum, bound down at sides. Liver 2 inches below.

Spleen, few adhesions at base and antero-internal surface.

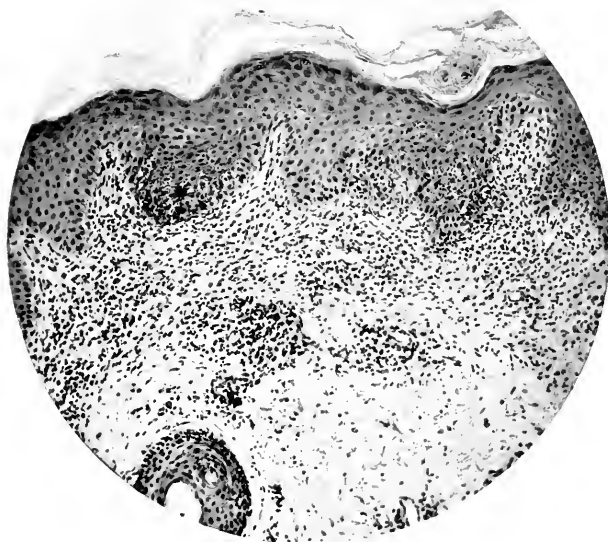
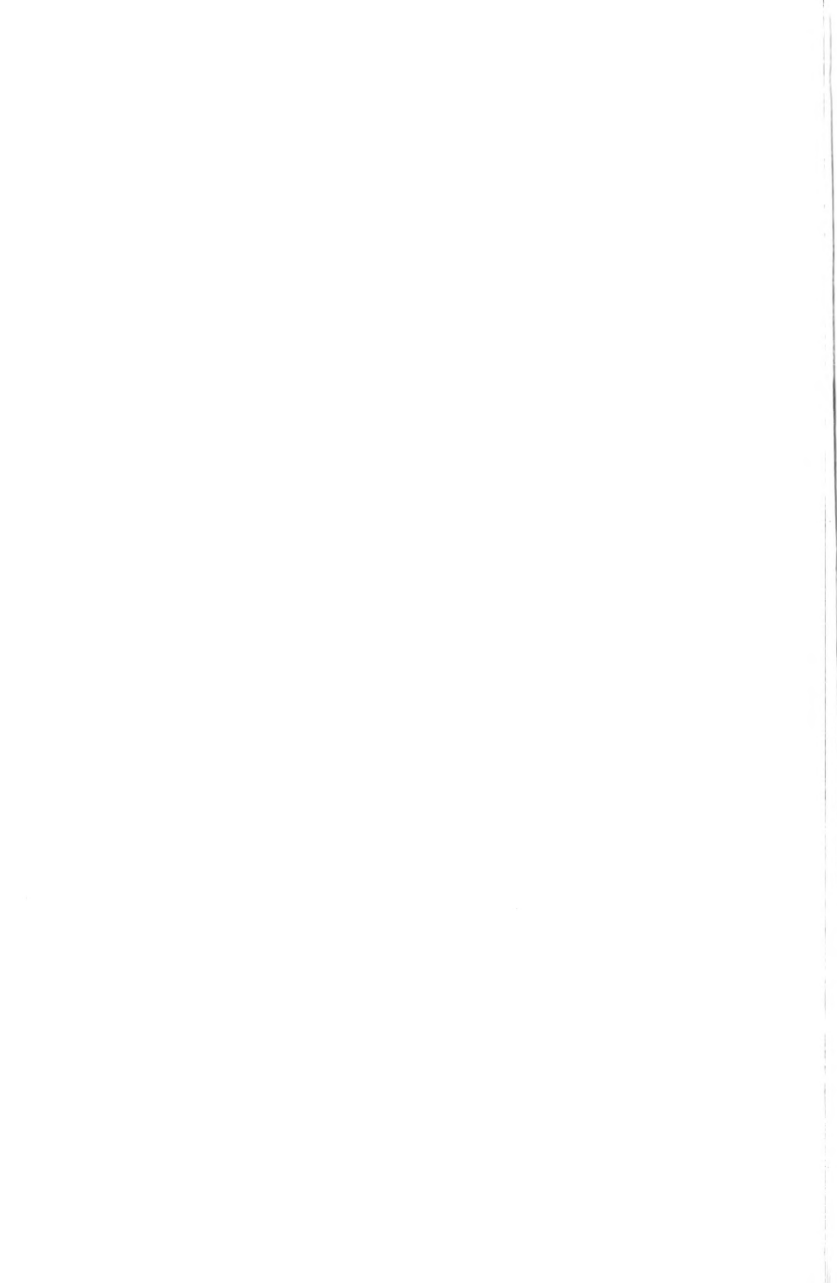


FIG. 4.—*Spencer* 1 in. Compensation ocular 4, *Zeiss*. Showing the cell-infiltration of the papillæ and superficial dermal region.



Veriform appendix 3 inches long and bound down by adhesions.

Small intestines: Contents semi-fluid, greenish material. Mucous membrane slightly congested.

Stomach, slightly contracted. Mucous membrane pink. No thickening.

Liver, weight, 63½ oz. Size, small; surface fatty. Consistency friable; blood-vessels not thickened.

Gall-bladder full of bile. Common duct pervious.

Pancreas large, pale, and very firm.

Spleen, weight, 8½ oz. Large-sized; dark-colored. Consistency soft and mushy, but not friable.

LEFT KIDNEY.

Weight, 6 oz.

Capsule strips, leaving a finely granular surface with deep cicatrices.

Cortex, thickness slightly increased.

Markings— coarse foggy infarcts with pale, tubercular granula.

Blood-vessels, thickened, stand out as little tubes

RIGHT KIDNEY.

Weight, 6½ oz.

(Right kidney same as left.)

ADRENALS:

Cystic.

BLADDER:

Empty. Mucous membrane—two small brown submucous areas the size of a split pea.

UTERUS:

Chronic cervicitis.

AUTOPSY:

Diagnosis: Acute dilatation of the heart, with brown atrophy of the muscle. Chronic diffuse nephritis, with arteriosclerosis and infarctions.

Our entire ignorance of the etiology of lichen planus renders it difficult to say in what way the vascular and kidney changes were related to the skin eruption. It is, however, probable from the wide dissemination and the manner in which the eruption extended, that it depended on changes in the cutaneous blood-vessels. It was noted that an acute outbreak of new lesions on the skin was preceded by an elevation of temperature, headache, and general feeling of illness, indicating the

presence of some poison in the general circulation. We would probably be justified in view of the autopsy findings in attributing this constitutional disturbance to the deficient kidney elimination.

Diagnosis.—The only affections that came under consideration for differential diagnosis were syphilis and psoriasis. The distribution, grouping, and pigmentation strongly suggested an early relapsing syphilide, but such a diagnosis was negatived by the absence of all concomitant signs of that disease, the presence of the characteristic, flat, angular, shiny papules, the absence of other types of eruption and the intense subjective disturbance in the way of itching. Psoriasis was excluded by the typical primary papule, which, in its early stages, was totally devoid of scales, and by the formation of patches from the confluence of individual lesions rather than by the peripheral extension of a single one. Pigmentation accompanying or following a psoriatic eruption is of unusual occurrence; the color of the scaling spot in this disease being in marked contrast to the bluish or purplish color of the lichen papule.

Microscopic Examination.—Several small papules were excised from the back, fixed in formol, the hardening being subsequently completed by alcohol of increasing strength. The sections were cut in series in paraffin and stained by various reagents.

The changes were found to be fairly typical of those which are usually met with in this process. Under a low power (Fig. 4, plate) the epidermis and papillary layer are seen to be chiefly involved, the latter region being densely packed with small cells staining deeply and made up chiefly of mononuclear leucocytes.

An examination of more than a hundred sections failed to show any relationship between the cell-infiltration and the appendages of the skin. In some of the sections the coils were somewhat dilated but beyond this no changes were observed.

The most characteristic feature of the cell-infiltration, to which attention has been called by previous investigators (Robinson, Crocker, Uma, and others), is its sharp definition against the connective tissue below, the pathological process being limited, apparently, to the papillary distribution of the vessels. The cell masses were so dense in places that it was difficult to determine the boundary between them and the epidermis. Under higher power the infiltration was found to contain, in addition to the mononuclear leucocytes with deeply stained nuclei, cells with larger elongated nuclei which take the stain less brilliantly, representing, probably, young connective-tissue cells; connective-tissue cells containing granular pigment, as well as pigment free in the tissues. As the epidermis was approached a considerable number of polynuclear

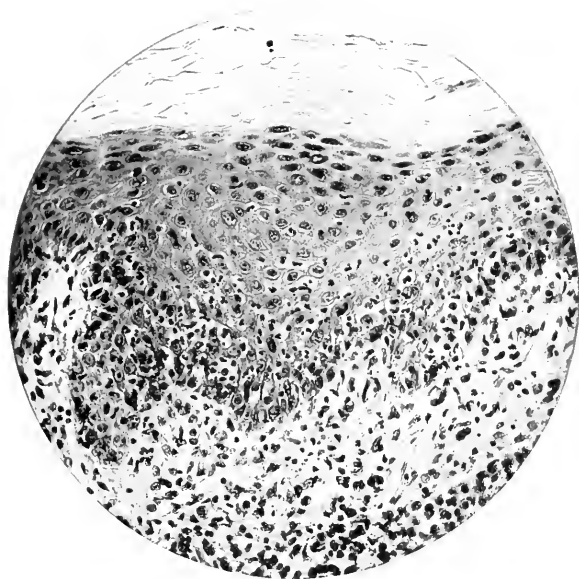
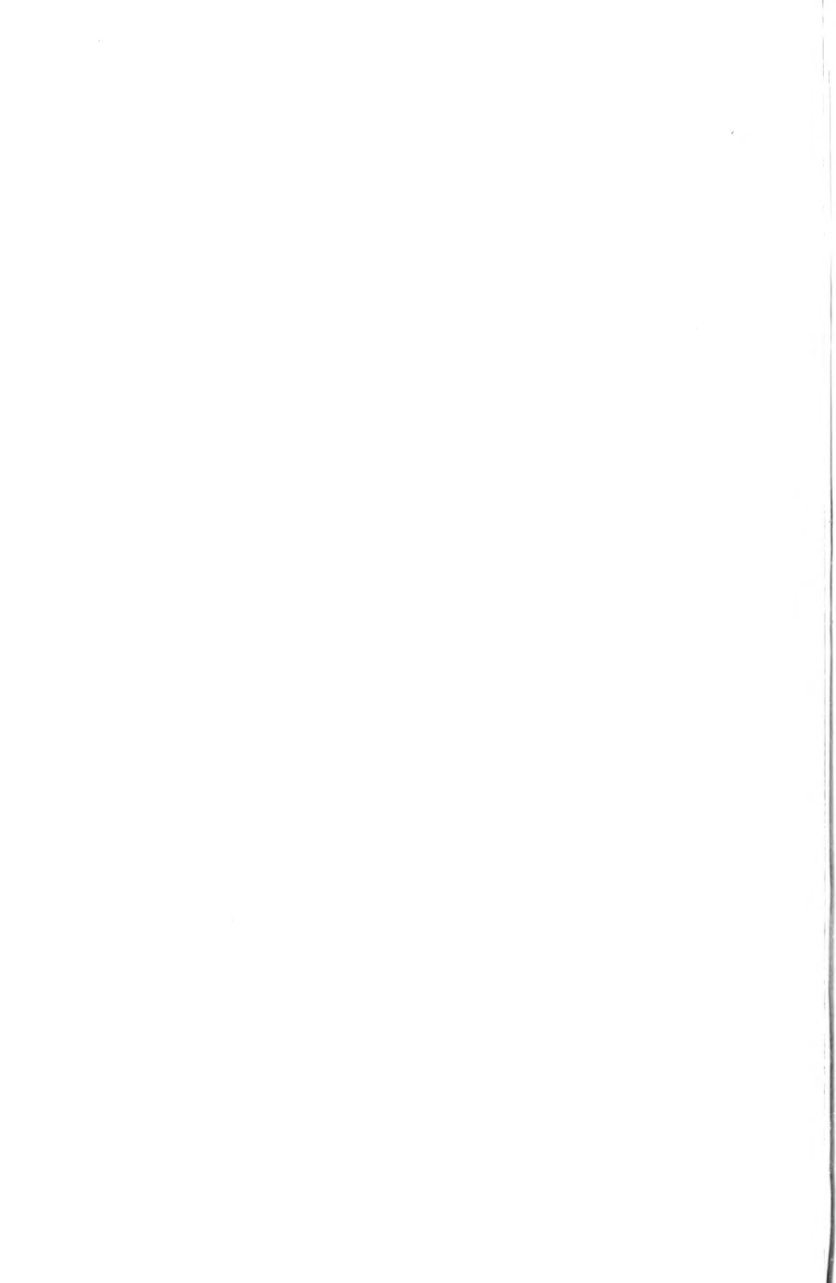


FIG. 5.—*Spencer* $\frac{1}{4}$ in. Projection ocular, 2 Zeiss. Showing the invasion of the epidermis by polynuclear leucocytes, the degeneration of the lower layers of rete-cells and the hypertrophy of the granular and horny layers.



leucocytes and fragmented nuclei were found, and within the epidermis this variety of leucocytes was exclusively seen lying between and within the epithelial cells. (Fig. 5, plate.)

The lymph spaces between the prickle cells were dilated, permitting the free ingress of serum and leucocytes.

The lowermost layers of prickle cells become distorted and undergo degeneration: their capacity to take stains is lost, and in some the nuclei disappear, the cell protoplasm being converted into a homogeneous colloid mass.

Numerous miliary cysts were found within and between the epithelial cells containing nuclear fragments. In figure 4, plate, the degeneration of the prickle cells and the invasion of the epidermis by leucocytes is well shown. The middle and superior layers of rete cells show considerable activity, numerous mitoses being met with. The granular layer was everywhere thickened, consisting of from four to six or more layers of cells. A general hyperkeratosis was also present as shown in the two photomicrographs.¹

The clinical features of the disease are readily explained by the histological findings, the papules being composed of a cell exudation in the most superficial layers of the derma leading, in its most active stage, to a degeneration of the inferior layers of rete cells and to the fibrous tissue in the papillary body. The involution of the papule, at times is followed by a slight atrophy which is due to the degeneration referred to. The bluish-red color of the papule, in my opinion, is due rather to an extravasation of red corpuscles and the coloring matter resulting from their disintegration than to the opaque character of the thick cellular layer as given by Unna. The purpuric character of certain cases, the persistence of pigmentation after the cellular exudate disappears, as well as the free pigment in the tissues would support this view.

There is little or nothing in the microscopic appearance of the sections that would lend support to the nervous theory of lichen.

It would be more reasonable to suppose we have to do with some poison in the general circulation which, acting on the papillary blood-vessels, determines the phenomena in question. Itching, which is generally so pronounced and distressing, is frequently associated with affections of the epidermis in which the minute nerve-fibrils are presumably subject to irritation. In lichen the seat of their greatest distribution is also the most actively involved by the inflammation.

66 Park Ave.

¹A very complete and accurate description of the lichen papule and its modifications can be found in Unna's "*Histopathology of Skin Diseases*," English Translation, page 303.

AN UNUSUAL BULLOUS ERUPTION, LIMITED TO CERTAIN AREAS AND RECURRING AT IRREGULAR INTERVALS.¹

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M. H., male, aged 60, widower, of light complexion, a native of Ireland and an inmate of the Soldier's Home in Milwaukee, entered my clinic October 22, 1897. He complained of an itchy eruption situated on the inner surface of the thighs and to a less extent on the ulnar surface of the forearms. His family history was fairly good and nothing could be obtained especially bearing on the case. He had served in the war of the rebellion and previous to that time had enjoyed robust health. He was wounded in the left knee which has left him slightly lame. His left eye was also injured at that time. He is subject to rheumatism and has had bronchitis for many years. He also complains of being "exceedingly nervous." The exposure occasioned in making the examination and procuring the accompanying photographs resulted in a severe attack of lumbago the following day. His skin disease first began in July, 1894, appearing on the wrists and extended upward on the inner surface of the fore-arms to the elbows. A few days later it broke out on the inner surface of the thighs and in location and general appearance was similar to the present attack. It was red, had blistered and was very itchy. The eruption remained three or four weeks when it completely disappeared. The following winter a second attack occurred which he says corresponded in every way with the first and which likewise lasted a few weeks, since which time he has suffered repeated attacks at various times of the year and at irregular intervals. Neither could he say that the recent attacks occurred more frequently than at first. They were without premonitory symptoms and first attracted attention by their itching.

¹ Read before the American Dermatological Association, May 31, 1898.

When the case came under observation he was suffering from the seventh attack and the eruption had existed about a week. There were found slightly inflamed areas of skin situated over the ulnar region of the forearms and on the inner aspect of the thighs. The inflamed areas corresponded with the distribution of the internal cutaneous nerve in the forearms, and the cutaneous branches of the obturator in the thighs. A few large abraded papules were also scattered over other parts of the body. The lesions consisted of papules, small abraded tubercles, vesicles, a few pustules, and numerous blebs ranging from a pea to a hazel-nut in size. Neither the blood nor the contents of the bullæ were examined. Especial attention was given to the arrangement of the lesions, but aside from a few groups on the forearms, nothing suggestive of herpes could be detected. It was entered, however, as a peculiar case of dermatitis herpetiformis. He was given 5 drops of Fowler's solution t. i. d., and a solution of resorcin (3 p. c.) and glycerole of tannin (30 p. c.) applied. He was directed to open the blebs and flush out the cavity with the solution once daily. During the week following several new blebs appeared while others disappeared, but the eruption did not extend beyond the areas first involved. Sometimes new blebs would form during the night without any previous vesicle having existed on the spot, neither could it be detected that the vesicles had any special tendency to increase in size to form bullæ, and no regular order or sequence as to formation could be detected. The disease seemed to yield quite readily to treatment, and a week after the case first came under observation nearly all the lesions had disappeared, leaving dry crusts and and slightly scaly spots, which soon underwent complete resolution, leaving the skin a dark-reddish tint. Probably the natural tendency of the disease to disappear at a certain time had more influence in causing the eruption to subside than did the treatment.

As to previous attacks, we must rely wholly upon the patient's observation and recollection, which cannot be taken without some reserve. Accuracy in recognizing herpetic groupings and urticaria, lesions so prominent in Dühring's description of the disease, could not be expected. They may have been present in previous attacks, although absent in the present, and future observations may justify the name dermatitis herpetiformis rather than recurrent dermatitis multiformis which seems more applicable to the disease at this time.

The most noteworthy features are: the multiform character of the lesions with a predominance of small bullæ, the intense itching, the symmetrical distribution and limitation to certain areas, recurrence in the same positions, the shortness of the attacks, and the complete

immunity the patient enjoys during comparatively long intervals of from three to seven months.

Cases of dermatitis herpetiformis in which the eruption was first limited to the inner or outer surface of the forearms, to the corresponding positions on the thighs and legs, but later either in the first or subsequent attacks, spread more generally over the body, are quite frequently met with in medical literature.

The only case that has come to my notice similar to the one herein reported, occurred in Vidal's service and cited by Brocq (*Annales de Dermatologie et de Syph.*, p. 152, 1888), in which the disease began at the age of five months and reappeared at intervals for twenty years. The eruption was limited to the dorsal surface of the hands, to the anterior and outer surfaces of the legs from the knees to the ankles, involving the inner malleoli and the toes. It never appeared on the other parts of the body.

In the discussion which followed the reading of this paper Dr. Duhring did not regard it a case of dermatitis herpetiformis, while others expressed themselves as favoring this view.

ON SOME OF THE SPECIAL CHARACTERS OF THE ANATOMY OF THE MALE URETHRA, AS BEARING ON INFECTIOUS OR TRAUMATIC LESIONS. REGENERATION OF EPITHELIA OF URETHRAL MUCOUS MEMBRANE.

By THOMAS H. MANLEY, M.D.,

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IN order that we may the more deeply penetrate into and unfold some of the mysterious processes in operation in the various organs of the body, the seat of pathological processes, it becomes necessary in the beginning that we first acquaint ourselves with the ordinary and the special quality of the structures entering into them, their normal and vicarious functions, and those deviations from the healthy state which render necessary the intervention of the healing art for the relief or cure. The importance of a thorough knowledge of the physiology and structure of the parts constituting the genito-urinary system, has recently been emphasized by M. Guyon,¹ who demonstrates the dangers and the futility of undertaking the surgical treatment of lesions involving the urethra without an intimate acquaintance with its normal relations and functions.

¹ *Annals des Mal. des Organes Gén.-Urin.*, 1898.

While rapid advance has been conspicuous in the treatment of stenotic conditions of the alimentary and respiratory passages, notable improvement has been witnessed in perfecting relief measures for obstructive lesions of the urethral passages to the bladder.

It cannot be said, however, that any radical improvement or more effective therapy for mechanical impediments in the male urethra has been devised since the Listerine epoch than before it. The more notable additions to surgical technic, as aids to diagnosis and effective therapy are: (1) Otis's demonstration of the remarkable expansile properties of the urethra's lumen; (2) Neisser's urethroscope, and (3) Guyon's work in urethral end-to-end anastomosis, by the perineal route, for traumatic urethral rupture or chronic urinary fistula in the perineum.

Gonorrhea still remains the *bête noir* of genito-urinary surgery, notwithstanding the development and comparative perfection of local anti-septic treatment of this often obstinate malady by Valentine in America and Janet in France.

CERTAIN SPECIAL FEATURES IN THE ANATOMY OF THE URETHRA.

When we come to examine the complex functions of the male urethra as a passage for the outflow of the urine, and, as a receptacle and projector of the seminal fluid, it at once becomes apparent, that lesions of it must, in many particulars, present several unique features.

As may be expected, many anatomists, notably Zappý, direct our attention to some of the special and striking structural characters which clearly distinguish the urethra from any other tubular conduit in the body.

The root of the urethra is fixed and springs from the prostate; it then penetrates the triangular ligaments where it takes on a muscular investment, and then enters the bulb, where the spongy body begins. It now passes forward well-sheltered and held in position by the broad, firm, cavernous body.

The immediate investment of the mucous membrane of the penile urethra is a highly vascular, erectile structure, capable of extreme turgescence.

The mucous membrane of the urethra is there and everywhere adherent. Its middle layer contains elastic fibers and smooth muscle elements.

Follicle, crypts, and glands are everywhere abundant in the mucous membranes; some of the crypts extending entirely through it to the periphery of the angiomatous tissue overlying it; the most deeply lodged of all, being in the prostatic collar, where Cowper's crypts and Littre's

follicles, though of narrow diameter, sink far into this rudimentary organ. Morgagni's lacunæ, which give so much trouble in passing bougies, thickly occupy the whole floor of the urethra from the meatus to the orifices of the ejaculatory ducts.

As the spongy urethra derives its vascular supply from the cavernous body, it is evident that in the event of damage from disease or injury repair must necessarily be more rapid and complete than in the tubular canals inadequately provided in this respect. In the turgescient state of the penis, attendant on erection, the volume of blood forced into the tissues superjacent to the urethra is very great, and hence marked hyperemia of the mucous membrane is invariable. The spongy urethra is pliant and capable of considerable distention or elongation.

HISTOPATHOLOGICAL ANATOMY.

Throughout its entire length the urethral mucous membrane is lined by pavement and stratified columnar epithelia. It is claimed, and no doubt, in a large measure is true, that one trained in urinary microscopy can readily determine by an examination of the urinary sediment what organ or area of the genito-urinary tract is the seat of localized pathological changes by a study of the special characters of the cast-off epithelia. Thus, in blennorrhagic invasion of the urethra we may detect with precision epithelial elements which point to whether inflammatory action is located in the navicular fossa, the spongy or prostatic urethra, the bladder, the ureter, the pelvis, or the tubular structure of the renal cortex.

In severe gonorrhœal infection of a mixed type or a diphtheritic character, free suppuration, attended with destruction of the mucous and even the submucous elements may be very considerable. This circumstance points to the remarkable regenerative properties in the mucosum in the work of repair.

When we discover in the urinary sediment a free admixture of blood-corpuses, with large shreds of connective tissue and extensive necrotic fragments of gland elements, we know that there are areas of deep ulceration along the floor or walls of the infected urethra.

This loss of urethral substance is not uncommon in all highly virulent forms of gonorrhœa; the gonococci with pathogenic microbes penetrating deeply into the lymph tracts and beyond the mucous crypts.

Finger has described certain virulent forms of gonorrhœa, in which, not only does the destructive action extend into the deep cavernous structures, but likewise spreads outward, producing an erosion of the

meatus, or even slough of the foreskin ("La Blennorrhagie et ses Complications," p. 57, 1894). And later, Leloir has minutely described these forms in his work on "Polydermites" (*Journal des maladies cut.*, 1895).

Julliet at the late congress of dermatology and syphilography, *Annales de dermat. et de syphilographie*, p. 1219, October, 1896, *note sur l'ulcération blennorrhagique*, has described a chancroidal form of gonorrhea, which extend to various lengths from the meatus. This condition is attended with abundant infiltration into the spongy body, which imparts a hard, inelastic sensation to the touch.

The author cites instances under his observation in which the infection has spread across the perineum and involved the anus and lower third of the rectum. He emphasizes the point, that the mucosum of the vulva is not exempt from this complication.

LOSS OF URETHRAL SUBSTANCE BY SUPERFICIAL EXFOLIATION OR DEEP NECROSIS, AND THE EXTENT AND MANNER OF REGENERATION AFTER LOSS.

In the event of partial exfoliation or evulsion *en bloc* of the urethra, after intense inflammation or traumatism, the important question arises—is it probable in such an event that such regenerative activity may follow as to lead to quite full restoration of function?

If we were to determine this question by assuming that repair must follow the same lines in the urethra as any other tubular organ, *e.g.*, as the alimentary canal or air-passages, a negative answer must be given; but yet, when we come to critically investigate the subject, we will find that while the same laws operate in regeneration of all tissues, in the case of the urethra the circumstances are special and unique.

About two years ago Professor Herman Collyer of New York presented before the Metropolitan Medical Society of New York a cast of the entire male urethra, shortly before shed by a young man under his care for gonorrhea. A section of the specimen was kindly given me for analysis, in order to determine whether this was merely a mold of diphtheritic exudate or whether it included the glandular apparatus and spongy body of the urethra. Section staining and repeated microscopical examinations made assured me that it was the latter. Not having ever seen or heard of any such a phenomenon before, I inquired of several surgeons if they had; none had. I then turned to surgical literature and reports on genito-urinary surgery for the past twenty years, but the record of no similar case could be found.

The nearest approach to it was found in Gross' "Surgery," where the author states that "the mucous membrane of the urethra, like that

of the bladder, is liable to become inverted and prolapsed at the external orifice of the canal. The condition is extremely rare and for obvious reasons is confined to the female sex." He cites the cases recorded by Surnon and Séguin, but does not appear to have ever seen one himself. At all events this condition has scarcely any analogy with Collyer's, in whose patient urethral function has been maintained.¹

Finally, several old and modern works on pathology were fruitlessly searched, but none recorded any cases of total, croupous, or gangrenous exfoliations of the urethra; though localized chancroidal ulceration was fully considered in several.

In fact, after a fairly full investigation into the subject the conclusion was forced on me, that the anatomico-pathological foundation of this specimen, the clinical history of the case, and ultimate results are not only quite inexplicable, but unparalleled in the annals of surgery.

MODE OF REPAIR, OR THE LIMIT OF EPITHELIAL REGENERATION AFTER LOCALIZED OR EXTENSIVE DESTRUCTION OF A MUCOUS MEMBRANE.

The regenerative power of epithelial surfaces very greatly vary in different regions of the body. Thus, the mucosum of the alimentary canal and of the entire genito-urinary tract, resting in a loose bed of myxomatous connective tissue, is much more abundantly provided with nutritive elements from the blood than the cuticle. In the uterus we have the entire mucous membrane thrown off in parturition. In the gastric mucous membrane we have undoubtedly large losses of epithelial substance in pathological conditions promptly repaired by cell fission, nucleation, and proliferation.

In conditions of croupous or diphtheritic inflammation of the upper air-passages we have large gangrenous patches and extensive membranous casts of mucous membranes ejected.

¹ Besides the current text-books on general surgery, the following authors were examined and scrutinized in vain for some light on above topic: Delfau, "*Malad. des Voies Urinaires*"; Fleming, "*Diseases of the Urinary Organs*"; Gouley, "*Surgical Disorders of the Male Urinary Organs*"; Reginald Harrison, "*Diseases of the Male Genital Organs*," 4th Ed.; Guyon, "*Leçons sur les Malad. des Voies Urinaires*"; Taylor, R., on "*Genito-Urinary Diseases*"; Sturgis, T. R., "*Genito and Ven. Diseases*"; Civiale, "*Des Organes Genito-Urin.*"; Mariac, "*Maladies Ven.*"; Duplaz et Reclus, "*Chirurgie, Ouvres de*"; Van Buren and Keys, "*Diseases of Urinary Organs*"; Otis, "*Genito-Urinary Organs and Syphilis*"; P. A. Morrow, M.D., "*A System of Genito-Urinary Diseases*"; Lisfranc et Desmoreau, "*Malad. des Voies Genito-Urin.*"

In croupous exfoliation the dominant elements in the ejected cast consist in inflammatory deposits with an admixture of fibrin, but in genuine diphtheria we may have a true phagadenic ulceration and slough which involve large areas of mucous membranes. But, when the patient survives, those denuded areas, after the necrotic masses are detached, in a short time become clothed with a fresh epithelial investment when full restoration of function is established.

Corrosive liquids, when accidentally swallowed, often lead to stricture of the esophagus through destruction of the mucous membrane. It is well known, however, that many of these cases, under appropriate treatment, tend toward recovery; an event quite impossible to contemplate without assuming large epithelial regeneration; and if not a fairly complete restoration of a histologically entire mucous membrane with the development of a mucous surface, ample, nevertheless, for all physiological purposes.

After the injudicious employment of the strong urethral injections such an intense inflammatory reaction may ensue as to provoke an erosion and detachment of patches of mucous membranes which are washed out with the urine, and often followed by stricture.

As a matter of common observation, it is well-known in operative surgery on parts involving, or contiguous with, a mucous surface, that it is of vital importance to clear the mucous membrane or preserve as much as possible of it, else, contracture and stenosis in varying degrees are quite certain to follow. But in pathological conditions Nature in a marvellous manner provides for the loss of substance.

Restitutio ad integrum.—How, this restitution of histological elements when the matrix tissue, the seed-bed itself, is swept away?

This is the problem which has to be faced in the case presented by Collyer and other minor cases, for here we have irrefragible proof of destruction and exfoliation of an entire mucous membrane with a thick layer of the erectile tube in which it is embedded.

There are various theories more or less tenable which may at least in part explain the mode of structural repair in these cases of loss of urethral substance.

First, can fixed cellular elements, like the connective-tissue corpuscles germinate, assimilate to epithelia, and provide an endothelial envelope? Billroth alleged that in neoplastic formations it was possible and probable that sarcomatous corpuscles might take on epithelial changes, and various surgeons, among whom may be enumerated Brodie, Cooper, and Boeyer, alleged that in all urinary fistula there was a tendency for the lumen of the new tract to take on an epithelial investment.

ON THE INSEMINATION OF THE FISTULOUS TRACTS AND PASSAGES BY
EPITHELIA AS A MEANS OF SUSTAINING FUNCTION OR PERPETRATING
VARIOUS PATHOLOGICAL CONDITIONS.

The tendency of all accidental or adventitious openings or tracts, extending from the surface of the body to hollow organs, is toward obliteration by contraction and cicatrization of the divided parts. Sometimes, however, these accidental openings fail to close and a fistula remains.

In this connection it is important and interesting to observe that the tendency to closure and effacement of the leak is much greater in those openings extending into canals which convey infected excrement than those which carry aseptic liquids. For example, an incision which opens the ascending, descending colon or the rectum closes much more rapidly than one made through Steno's duct or the urethra.

Frequently, it becomes necessary in the surgery for mechanical obstructions and other therapeutics purposes to establish false passages when the hollow organ is drawn into the wound and a mucous-lined passage is secured; again, this can be but imperfectly accomplished when one most depends for patency of the passage on dilatation and epithelialization of it. This is notably the case in hypogastric cystotomy or pleurotomy.

In end-to-end anastomosis of any tubular organ a ring of cicatricial material must constitute the uniting link when an annular gap of connective tissue on the interior must separate the divided mucous membrane within the lumen which, without epithelialization, must continue contracting until obliterative stenosis is reached. Theoretically, this apparent impediment to *restitutio ad integrum* for centuries delayed the venturesome surgery of our age, which has made its most startling advances in the lesions of the hollow passages. The great drawback was the fear of consecutive stenotic contraction. And this, no doubt, results in all cases, and would continue on to complete obliteration were it not that the fluids or solids coursing through, either constantly or intermittantly, keep up a gradual but steady expansion.

In some cases where a mucous-lined passage is partly or completely divided with or without loss of substance, this physiological expansion must be supplemented by the intervention of art. We have the best illustration of this in lesions which involve the urethra.

In my first case of resection of the urethra for an incurable perineal fistula, this fear of ultimate stenotic occlusion haunted me till a practical demonstration proved that it was only imaginary; that although

a tendency to stricture did follow, the passage of a sound at varying intervals for three months ultimately entirely overcame it.

There are three things which follow each other in the mode of repair of a mucous passage as in a breach anywhere through the integument which closes by gradual proliferation or neoplasia. These are: first, granulation; secondly, condensation and absorption, and thirdly, epithelialization.

Another potent agency comes into play in necrosis, or loss of mucous membrane by trauma or chemical substances. This is the *inherent* tendency of a tissue in the event of damage to its integrity to *revert* to its original structure. This is most strikingly exemplified in the osseous system and in the articulations; its degree of perfection depending on many circumstances; though we find the best examples of it in bone regeneration and in neo-arthroses.

Without this provision of Nature, after the caustic action of a hot or destructive fluid on the esophagus, the partial, extensive ulceration, necrosis or virulent exfoliation of the urethral mucous membrane, varying degrees of atresia must inevitably succeed.

A knowledge of this salutary provision and the means how to accelerate it, often enables us to restore function in organs vital to existence.

It is only necessary and imperative to remember that the passage must be *left open*; bougies or sounds must be left *in situ* or passed at such intervals as may be required to prevent the opposing denuded walls from agglutinating and fatal adhesions forming, the tendency to which being great in young subjects.

The unsatisfactory results or the transient relief which so often follows internal or external urethrotomy, no doubt in a large measure is dependent upon not taking the precaution to keep the urethra *widely* opened by the passage of full-sized sounds until the breach in its wall has flattened out and become well clothed by an epithelial investment.

Clinical Notes.

A MICRO-CAUTERY FOR DERMATOLOGICAL USE.

BY WILLIAM S. GOTTHEIL, M.D.

AT the 62d Congress of German Naturalists and Physicians, Heidelberg, 1889, Unna described a cautery instrument suitable for the minuter work of dermatology, and constructed, apparently, upon the lines of one described by Tænzer some years before. I have not been able to find the description of Tænzer's instrument; but that of Unna was essentially a micro-Paquin cautery, with the benzine container, handle, and knives on a much smaller scale than those of the ordinary instrument. The points were copper caps fitting upon the platinum tip through which the benzine vapor circulated, and were heated by conduction; they were of course subject to oxidation and scaling, and required frequent renewal. Since then Unna has several times had occasion to mention the instrument, which he has found very useful for the destruction of the hypertrophied blood-vessels in rosacea and telangiectasis, for the removal of soft and vascular nævi, mucous polypi, and xanthomata, for the obliteration of suppurating acne pustules, and many other purposes.

For dermatological work, however, the Paquin is decidedly inferior to the galvano-cautery, the points of which may be made as small as is required and of a metal not subject to oxidation, and where the left hand is not required to press the bulb. The increasing use of the commercial current in our offices, and the cheapness with which storage batteries can be bought and hired, have largely removed the chief objections to its use. The ordinary handles, points, and cords provided by the instrument-makers are, indeed, quite unsuited to dermatological needs. The cords are entirely too stiff and heavy to handle with ease; the handles are too big and clumsy, and the slide contact is troublesome and apt to get out of order; and the points are much too long to permit of accuracy of manipulation. The whole apparatus is extremely inconvenient; and, working, as we usually do, upon the face, where exactitude of application is quite indispensable, it is almost useless.

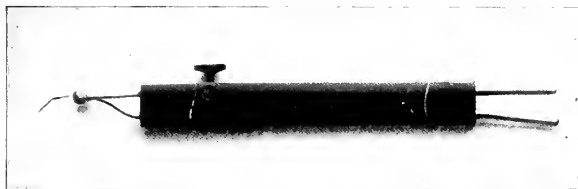
As I was not able to find any suitable apparatus on the market in this city, I had the Wappler Electric Controller Company construct one for

me which has given me great satisfaction, and which, I think, fulfils all the requirements for a practical micro-cautery for use on the skin and any other situations where delicacy of touch and accuracy of manipulation is required.

The handle is shaped like a carpenter's lead-pencil, is of hard rubber, four inches long, and as light as it can be made. It is to be held like a pen, with the little finger and outer edge of the hand resting upon the surface adjacent to that which is being treated. Under the forefinger is a button by pressure upon which the circuit is instantly made; the spring in the conducting-wire breaking it at once when the pressure is released. This spring is very light, and mere pressure contact is all that is required to complete the circuit.

The contacts in the handle are perhaps the parts most liable to derangement in any cautery-holder. There necessarily occurs a minute arc between the contacts as the current is made and broken, and this

FIG. 1.



leads to corrosion, no matter what metal is employed. The oxids formed are non-conductors, and are a fruitful source of trouble. In this holder the contacts are of platinum, as little subject as any metal to the corrosive action of the arc; and they are so arranged as to allow of a considerable amount of lateral motion, so that the opposing surfaces may be cleansed of oxid by rubbing them against one another.

From the point of the handle project the two short arms that hold the knives, ending in small bulbous expansions containing orifices for the insertion of the points, and the minute watchmakers' screws by which they are clamped in place. The orifices permit the insertion of knives made of wire varying from number 22 to number 30; thus permitting quite a wide range in the size of the instruments that can be used. A small watchmaker's screw-driver only is required to change the knives. Thumb-screws, no matter how small, would be in the way in so small an instrument, and so close to the point of operation.

The points themselves are of ordinary irido-platinum wire, and can be readily made as needed with the help of a small pair of parallel-bladed plyers and a tack-hammer. It is well to heat the wire before bending or beating it into the required shape.

The cords are very much smaller and lighter than the ordinary ones, and are so flexible that they in no way interfere with the convenient handling of the instrument to which they are attached.

The best source of electric power for heating the knives is of course the Edison street current; and I employ it for this as for all other electric purposes. The cautery transformers now made by the Edison Company enable us to use the 110-volt direct current for cautery work and for the lighting of miniature lamps. The apparatus has already been described in the journals, and consists of a motor-generator and a transformer. The motor-generator converts the 110-volt direct into a 60-volt alternating current; this excites the primary coil of the transformer. For medical purposes an induced current is tapped from the secondary coil. The apparatus is convenient and effective; the current is always ready; it may be used for any length of time; and the expense, apart from the first installation, is trifling. The only objection to it is the noise made by the motor-generator; and this can be avoided by placing it in a cupboard, in another room, or in the cellar, and having only the transformer in the office.

Storage batteries can be employed where the commercial current is not accessible. Knives made of Nos. 22 to 30 iridoplatinum wire require from 2 to 4 volts for heating; the smaller sizes, from No 26 on, will work with one storage cell, whilst Nos. 22 and 24 require two cells.

Correspondence.

A LESS DISAGREEABLE MODE OF MASSAGING THE PROSTATE AND VESICLES WITHOUT INSTRUMENTS.

EDITOR OF THE JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES.

Almost every surgeon who has become convinced of the value of massage of the prostate or seminal vesicles, in connection with chronic congestion or inflammation of these organs, has been strongly tempted to use certain instrumental masseurs, solely for the purpose of avoiding the exceedingly disagreeable and unesthetic introduction of the finger into the rectum; and yet it was evident that such instrumental treatment could not equal in efficacy that given by the educated finger, directed and controlled by the delicate sense of touch lying in that member.

As Dr. Christian said, in a recent paper:¹ "This maneuver should be carried out by the finger alone. Mechanical devices for stripping the gland may be more esthetic, but they certainly do not accomplish the purpose so well as the finger."

I have removed a large degree of discomfort of the procedure—that arising from the contamination of the finger, and the odor that tends to linger on it, as well as the discomfort to the patient of introducing the bared digit through a tight sphincter—by the use of an ordinary rubber finger-stall.

A fairly thin one is placed on the finger, moistened on the outside, and then rubbed on a cake of soap for lubrication; the introduction is surprisingly easy and painless. The tactile sense is not interfered with; the vesicles and prostate can be as clearly delineated and manipulated as if nothing covered—and protected—the finger.

BRANSFORD LEWIS, M.D.

St. Louis.

MERCURY IN LICHEN PLANUS.

EDITOR OF THE JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES.

DEAR SIR:—I desire to record the results of the use of mercury in two cases of lichen planus which I have recently had the opportunity of observing.

The first case was a middle-aged, neurotic woman, who was suffering from a well-marked lichen planus of some months' standing. The eruption existed chiefly upon the forearms, hands, and legs, and was intensely pruritic. Local measures mitigated but little the intolerable itching. Fowler's solution in increasing doses was used for some weeks, but without any improvement whatsoever. At this time the patient came under the observation of Dr. J. Abbott Cantrell, who prescribed the biniodid of mercury in $\frac{1}{8}$ -grain doses, three times a day.

¹"Chronic Catarrhal Prostatitis," JOUR. OF CUTANEOUS AND GEN.-URINARY DISEASES, January, 1899.

Within a week after the inauguration of this treatment, there were evidences of beginning involution of the papules; within four weeks the eruption had practically disappeared. The itching, which had harassed the patient so much, abated at the very beginning of this treatment.

The second patient was a robust negro thirty years of age, the subject of an acute general lichen planus. The patient was a masseur, and was considerably above the average intelligence of his race. No etiologic factor could be discovered. This man was rather suddenly attacked with a copious outbreak of flat papules involving the entire cutaneous surface with the exception of the face and scalp. The lesions upon the trunk were arranged in clusters and bore a striking re-semblance to the miliary papular syphiloderm. (The patient was seen by Drs. L. A. Duhring and M. B. Hartzell, who concurred in the diagnosis of lichen planus.) The itching was severe, particularly at night, for the relief of which the patient was given a lotion containing liq. carbonis detergens, carbolic acid, boro-glycerid and water. The patient was placed upon hypodermatic injections of bichlorid of mercury, $\frac{1}{8}$ grain being administered three times a week. After three injections a perceptible improvement in the eruption was manifest. The improvement continued until after nine injections the eruption had disappeared, leaving behind a profuse brownish-black pigmentation.

I desire simply to record the above observations, leaving to others the judgment of the value of the remedy recommended in this disease, I believe, by Liveing. When arsenic fails or when, for any reason, it cannot be used, one would do well to give mercury a trial.

Very truly yours,

JAY F. SCHAMBERG

PHILADELPHIA, December 21, 1898.

Book Reviews.

A Clinical Manual of Skin Diseases. Second edition. W. A. HARDAWAY, M.D., Philadelphia and New York: Lea Brothers & Co., 1898.

It is a pleasure for the reviewer to write words of well-deserved commendation for any book; it is doubly so when the book in question is a manual of skin disease. Manuals have their uses in various grades, to the student, to the general practitioner, and to the specialist, provided only that they are kept level with the rising tide of current thought. Hardaway's book belongs to the second and third categories, with due respect to his title-page dedication.

With regard to the work itself, the author is to be congratulated in his abandonment of the alphabetical arrangement of the first edition. We shall hope to see Dr. Jackson follow suit when he prepares his work for its next appearance. There must be some uniformity in dermatology if any advance is to be made and a classification is the foundation-stone. The work of revision must have been as great as that required for the original compilation, for the index shows no omissions and, aside from entirely new matter, there is evident a careful revision of every subject in which any notable work has been done. References are quite numerous, so that the reader need not content himself with

the excerpts given. Treatment is clothed with all its modern elegance, no small task itself when the best therapeutic hints are often to be found tucked away in some obscure journal abroad which rarely finds its way into the hands of the specialist here. The few formulas given are not likely to do even the student harm. Illustration is not profuse nor very high in point of excellence. We might, all of us, bid a lasting and cheerful farewell to those diagrammatic illustrations from Kaposi's treatise. Certain affections described, impetigo simplex and ecthyma, could be dispensed with, but the fault is rather a good one.

J. C. J.

Diseases of the Skin. New and revised edition. MALCOLM MORRIS. Philadelphia: Lea Brothers & Co., 1898.

Morris does not dedicate his book to the student and general practitioner, and it is a matter for congratulation to him and to his coworkers whose heritage is the English tongue. It is a manual for the specialist, whatever its author may say to the contrary—apropos of the hateful word—a work quite remarkable for its conciseness, its forceful presentation of clinical pictures and, most of all, for its elegant and pointed diction. It is not always well to leave the personal note out of any work worth presenting at all and nothing is to be gained from an opinionless presentation of dermatological controversies. Morris speaks with no uncertain voice when he feels competent to judge; always, however, with courteous reference to the opposition. It is the dermatologists' manual for many reasons, but chiefly, as in Hardaway's book, on account of references given to complete the epitome and the elimination of unimportant detail. The revision has been as thoroughly done as in the other instance. Morris has adopted a classification which, correctly described as an attempt to group the diseases, is based on modern pathological research—in other words, etiological. It is needless to remark that it is, in this era of transition, inadequate. Illustration is profuse but not altogether commendable even in the case of the photomicrographs.

Students' Manual of Diseases of the Skin. L. DUNCAN BULKLEY, M.D. New York: G. P. Putnam's Sons, 1898. Fourth edition.

Like the two preceding, this volume is a manual but there the likeness ends. It is an elementary treatise for the beginner and, as such, is excellent. It does not appeal to the man whose work is done continually in this field. There is no attempt to present the subjects in any but the plainest possible manner. The paragraphs and the index on diagnosis deserve special mention, but in treatment the reference by numbers to an appended formulary is perhaps the poorest service that can be rendered to a student. Every teacher knows to his sorrow the tendency of the beginner to follow blindly the lead given him, and, while the prescriptions may be the result of ripe experience, the practitioner is poorly equipped when he starts out to treat rosacea with two formulas at his command or lupus erythematosus with half a dozen, and no definite indications to follow. The statement that scraping is effective in the latter will hardly find enthusiastic support. Dr. Bulkley atones for many of these faults by his insistence upon the value of internal medication. Beginning with Bulkley and passing on to Hardaway and Morris, the novice lays a straight road for himself to the place where he can appreciate the technical discussions carried on in the pages of dermatological journals.

Die Lehre von der Pellagra. CÆSAR LOMBROSO. Translated into German by H. Kurella. Coblenz, Berlin, 1898.

Pellegra is an endemic disease in Italy. According to the statistics gathered by the government more than one hundred thousand of inhabitants suffered from that disease in 1883. While all writers agree that the consumption of maize is the cause of the disease, some ascribe the disease to the small nourishing value of maize, others, with Lombroso, see the real cause of the disease in the eating of decomposed and fermented maize, during which toxins are produced which affect the organism. Chemical researches prove that maize contains more nutritious elements than wheat or rice, and it was proven that maize affects only the poorer classes of people, who consume diseased maize.

Lombroso made experiments upon animals with an alcoholic and water extracts of good and diseased maize. The toxic effects were only produced by the extract of the diseased maize. The most characteristic symptoms of the disease consist in changes of skin pigmentation, in the appearance of different skin eruptions accompanied with itching, in nervous derangements, and psychical disturbances, as hydromania, driving sometimes the patient to end his life by drowning. The urine is diminished in amount. The severest form is known under the name of pellagra-typhus, which usually leads to a fatal end.

Post-mortem examination revealed changes in almost all organs, the most characteristic change being a pigmentary degeneration of many internal organs.

The elimination of diseased maize from consumption is the best preventive remedy and the removal of affected persons to better surroundings where they can receive proper food is the best method of successful treatment.

On the last page of the book the author mentions very briefly the results he obtained in administering preparations of diseased maize to patients suffering with old psoriasis (13), pityriasis (1), eczema (7), scrofulous erythema (1), and eczema (2), with good results. In cholasma the external application of the oil of the diseased maize had a good effect.

B. L.

A Manual of Venereal Diseases. By JAMES R. HAYDEN, M.D. Lea Bros. & Co., New York and Philadelphia, 1898.

This little work shows a marked improvement over the edition of 1897. It shows evidence of being more carefully written, and gives in clear outlines the prominent features of the three venereal diseases, gonorrhea, chancroid, and syphilis.

Under the etiology of gonorrhea the author still maintains that gonorrhea may be contracted from a woman during or immediately after her menstrual epoch; also, that secretions of the uterus, or from lacerated surfaces of the cervix or perineum, and vulvo-vaginal secretions due to uncleanness may also cause the disease, implying that the woman need never have had gonorrheal infection. As these phenomena are entirely explainable it would be well if this chapter were a little better elaborated.

Under abortive treatment the author speaks of the mucoid stage in which epithelial cells and gonococci only are present, but no pus-cells, and states that this is the only period at which the abortive treatment should be attempted. While not denying the possibility of the occurrence of this stage, the reviewer must state that after several years' experience in making microscopic examinations of cases which have presented themselves at every stage, even before the appearance of discharge, the earliest moment at which anything in the shape of

a discharge has been obtained, pus-cells with intracellular gonococci have always been found. The reviewer does not believe that an abortive treatment with nitrate of silver, as described, should ever be attempted in a primary case.

If the Janet method, which is not well thought of by the author, is carried out in the manner described, the results are very apt to be what he describes them, and it cannot be anything but a "sloppy, dirty method." At the same time, the treatment which he outlines and calls the "rational" treatment is a safe, conservative treatment when carried out in the intelligent manner in which it is given. Still, it will be followed by a larger proportion of cases which remain chronic or infectious, than is irrigation when the same intelligent supervision is given.

A good, practical chapter on the proper disinfection of urethral instruments is given, and the sterilization of these instruments with formalin vapor is fitly characterized as rendering them "unfit for practical use, though from the laboratory standpoint they may be absolutely sterile and harmless."

The chapters on syphilis give a good working outline, but that on chancroid is not thoroughly up to date, the author not making a distinction between those in which the Durey-Krefting bacillus is found and those due to other micro-organisms. In fact, he does not accept the fact that this bacillus is specific.

The book is designed for students.

Diseases and Injuries of the Genital and Urinary Organs. HENRY MORRIS, M.A., M.B., F.R.C.S. Wm. Wood & Co., New York, 1897.

This work contains many valuable hints and aids to diagnosis in the surgical diseases of the genito-urinary tract below the ureters, surgical diseases of the kidney having already been treated by this author in another work. But little care is given to minute description of the surgical operations. Gonorrhea is omitted except as an etiological factor in some of the diseases presented, as stricture of the urethra and different forms of prostatitis, etc.

In the chapter on hypertrophy of the prostate the author takes the ground which is taken by the best authorities, that in no sense can this condition be attributed to inflammatory changes or to chronic hyperemia due to excesses in early life. The varieties are classified according to the work of Sir Henry Thompson. While he criticizes the profession at large for their want of appreciation of the warning signs which lead up to a pronounced form of this condition, he does not emphasize sufficiently the dangers attendant upon even the first catheterization of the patient for purposes of diagnosis, nor the danger of completely and rapidly emptying a bladder which has long been used to its volume of residual urine. Nor does he call attention to the fact that many look for a cystitis as an accompanying feature of prostatic hypertrophy, whereas many of these cases may, till they have been catheterized, have a perfectly normal urine. In these chapters again the treatment is very superficially outlined, and even rather carelessly so.

The work as a whole, however, is a very valuable addition to the library of any physician.

Treatment of Skin Cancers. W. S. GOTTHEIL, M.D. New York: International Journal of Surgery Co., 1898.

The title of Gottheil's little volume is, in a sense, a misnomer. It contains a discussion of the whole subject of epithelial new growth in the skin and is

illustrated by the author's fine photographs. The object of this special study is, we presume, the desire to advocate non-operative methods of treatment and the statement is made that a very large proportion of cases are better handled in this way. There are doubtless many men whose opinion coincides with this and who are competent witnesses, but removal of cutaneous carcinomata by caustic pastes is one which does not commend itself to a majority of dermatologists, even those totally lacking in *furor operandi*. In proof of the statement we need only cite the discussions of the New York Dermatological Society which have appeared in these pages.

Stricturen der Harnröhre und ihre Behandlung. DR. H. WOSSIDLO of Berlin.
C. G. Naumann, Leipzig.

This little pamphlet, which enters rather minutely into the treatment of stricture of the urethra as practised by the Oberländer school, is published without date; doubtless it is intended that it shall be good for all time, and possibly the final word has been said. It contains a description of the various methrotomes and dilators, the method of treatment by the Oberländer and Kollmann dilators being rather more carefully described. A chapter is devoted also to a description of the endoscopic appearances of the urethra when the seat of stricture. External urethrotomy is described; also, resection of urethra, and retrograde catheterization. There is a short chapter on stricture in women.

Chirurgie des Voies Urinaires. DR. ED. CHEVALIER. J. B. Baillière, Paris, 1899.

The author presents us with a fairly complete manual of the various operations upon the urinary tract and prostate, with the exception, however, of the description of resection of the vas and castration; operations for disease of the testicle and its appendages seem to have been omitted, but operations upon the kidney and ureter are presented. In many instances the operations are presented in too brief a manner to be of much value, clearness and detail being sacrificed to brevity. It is an exponent of the methods in vogue in the Necker school. The short preface is written by Professor Guyon.

Therapeutic Vade-mecum of Skin and Sexual Diseases. Therapeutisches Vade-mecum der Haut und Geschlechts-Krankheiten. R. LEDERMANN, M.D. Pp. 159. Oscar Coblentz, Berlin, 1898.

In the first part the author gives an account of the different varieties of ointments, pastes, liniments, ointment-mulls, and plasters used in treating skin affections. In the second special part he reviews the properties and actions of nearly all remedies used in skin and venereal diseases, paying due attention to new preparations. In the last seventy pages he deals with the treatment of the most important skin and venereal diseases, including syphilis. It is a very handy and useful volume.
B. L.

A Pocket Medical Dictionary. GEORGE M. GOULD, M.D. Philadelphia: P. Blakiston's Son & Co., 1898.

It is a work of supererogation to praise Gould's dictionaries. They are standards among the English-speaking peoples and there is only one other which can be favorably prepared with them, Foster's. The volume in review has many

points of merit. It contains the definition and pronunciation of 21,000 words, tables of many kinds, and is small enough to fit the pocket. Its price (\$1.00) is a recommendation. In these days when authors' name attached to disease have not been discarded the supplement containing a table of eponymic terms is most serviceable.

The Medical News Pocket Formulary. E. QUINN THOMPSON, M.D. Lea Brothers & Co., New York and Philadelphia, 1899.

There is a place, it is claimed, for formularies. There is, if they can be kept out of students' hands, a difficult thing to accomplish, and the prescriptions here selected are of recognized merit. It is perhaps impossible to keep abreast of the advance along every line, but the formulas given for skin disease show a lack of acquaintance with modern improvements in point of elegance. The author's name should, it would seem, be attached to his recommendation when it is known. Indications are clearly given where needed.

Syphilitic Myelitis. Les Myélites Syphilitiques. GILLES DE LA TOURETTE. Paris: J. B. Baillière & Fils, 1898.

The subject is considered under two headings: acquired and hereditary syphilis. In the first are grouped Pott's disease, intravertebral gumma, myelitis, malign precocious syphilis; acute, chronic, and irregular myelitis. The second division is given up to a thorough exposition of treatment, specific and general, in adults and children. The author's name guarantees the character of his work.

The Physician's Visiting List for 1899. Philadelphia: P. Blakiston's Son & Co.

Occasion has been offered in previous years to notice and commend this list. It contains every requirement outside of a complete set of books and has the advantage of fitting a pigeon-hole. The price is \$1.00.

ANNOUNCEMENT.—Messrs. Lea Bros. announce the approaching publication of a series of volumes to be called "Progressive Medicine," and to contain an epitome of medical science. The work is to appear quarterly beginning with March, 1899, and is to be edited by Dr. Hare of Philadelphia. The price for the year will be \$10.00.

Society Transactions.

NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SEVENTY-SECOND REGULAR MEETING, HELD ON TUESDAY,
OCTOBER 25, 1898.

DR. J. A. FORDYCE, *in the Chair.*

A Case for Diagnosis (Pityriasis Rubra).—Presented by DR. H. J. F. WALLHAUSER, of Newark, N. J. (By invitation.)

The patient was a man, 40 years old; glazier; married. He was a native of Russia and had been a resident of the United States for twelve years. He is the father of six children, who are all alive and in good health.

The man's present trouble began twenty-two years ago, while living in Russia. The eruption appeared first on the inner side of the thigh as two small, isolated patches, about the size of a silver quarter; the patient describes them as "white spots covered with loose skin, which would peel off on being rubbed or scratched." He is positive that there was no redness under the scales or around the lesions. The lesions on the thighs are still present, although considerably changed in appearance; they have now a deep purplish color, are very slightly raised, and somewhat infiltrated. About five years ago, or sixteen years after the appearance of the primary lesions, the patient noticed a similar patch on the right side of the abdomen, which was soon followed by similar lesions on different parts of the trunk and extremities, finally appearing on the face and scalp. This condition remained unchanged for a period of about two years, when the patient noticed a reddish color appearing over the entire integument, this redness being of a somewhat deeper shade in the original patches; the man's entire skin has gradually assumed a deep purplish-red appearance, and in some regions it is almost black.

The patient's general condition is as follows: Temperature, 96.6° F.; pulse, 73. Appetite fair; bowels regular; urine negative; his weight has diminished slightly; he complains of a feeling of malaise and chilly sensations, especially when exposed to drafts; inguinal and axillary glands enlarged and painful on pressure.

DR. G. H. FOX said that although he had not had an opportunity to study the case very carefully, he did not think that the present appearance of the eruption would justify one in regarding it as a mycosis fungoides. That diagnosis, he was informed, had been previously made. The eruption rather suggested pityriasis rubra, with unusual manifestations. The groups of cicatrices on different portions of the body might have resulted from some intercurrent eruption—possibly syphilitic. The history the man gives of white spots at the beginning of his trouble cannot be absolutely relied upon. The general redness and atrophy of the skin the speaker said he had seen repeatedly in pityriasis rubra.

DR. KLOTZ said that he was not prepared to make any other definite diagnosis, but from the present appearance of the case he would not accept that of pityriasis

rubra. Here the scales were hard, almost horny, dark-colored, and closely adherent, while in pityriasis rubra they were thin, whitish, more like flakes, easily detached, and very profuse, shedding even on the slightest contact. Besides the circumscribed areas of atrophic skin with a perfectly smooth, almost glistening surface, was a feature very different from what we see, hear, and read of in pityriasis rubra.

DR. S. LUSTGARTEN said that while the case presented some unusual features, he was inclined to regard it as one of pityriasis rubra. The atrophy of the skin was quite typical of the disease.

DR. WALLHAUSER, who presented the case, said that he also regarded it as one of pityriasis rubra, with some unusual features.

A Case of Obstinate Syphilis of the Nose.—Presented by Dr. G. H. Fox.

The patient was a young man with an inflammatory and pitted condition of the nose, which had existed, with intervals of improvement, for about twelve years. At first sight, it resembles an ordinary syphilide of the nose. When the patient first came under the speaker's care, five years ago, he had already been under mixed treatment for seven years without permanent improvement. Since then numerous remedies, internal and external, have been employed. Potassium iodid controls the inflammation to a certain degree, but the patient is intolerant to large doses. Simple emollients, such as zinc salve, combined with general tonic treatment, have accomplished more good than anything else. Dr. Fox suggested that there might be a tubercular element in the case, or at least something besides syphilis.

DR. LUSTGARTEN said that while the eruption resembled syphilis, he was inclined to regard it as an acne varioliformis. Its long duration, appearance, and uniformity would tend to confirm that diagnosis, and the location of such an eruption on the nose is not very rare.

DR. WALLHAUSER said he had had a similar case which improved under mild treatment and boring with nitrate of silver.

DR. ALLEN said he thought the eruption was a seborrheal eczema engrafted upon an old syphilis. The latter disease seemed undoubted. He could not entertain the diagnosis of acne varioliformis. As regards treatment, he suggested treating each separate sebaceous follicle, which is probably much hypertrophied, with the electrolytic needle, and applying to the surface such remedies as are of value in seborrheal affections.

DR. H. G. KLOTZ said that the obstinate recurrence of these lesions on the nose did not militate against the diagnosis of syphilis. This form of syphilitic eruption is one of those which have a great tendency to recur even for many years.

DR. WHITEHOUSE said he was inclined to agree with Dr. Allen that there was a seborrheal element in the eruption, which was very marked at present. The basis of the affection was no doubt syphilitic. He suggested for the present condition, however, local rather than constitutional treatment.

DR. J. A. FORDYCE said that while the features of the case suggested syphilis, the long duration of the eruption in one place rather excluded that disease. The duration suggested acne varioliformis. A microscopical examination would probably disclose some microbic infection of the glands, whether tuberculous or not remained to be seen.

DR. FOX said he had not thought of acne varioliformis, although some of the

lesions were quite typical of that disease. He had never seen a case of that disease in which the eruption was limited to the nose, although that would not militate against the diagnosis. At times, in this case, there have been solid tubercles, such as he had never seen in *acne varioliformis*. The diagnosis of seborrheal eczema implanted on an old syphilitic basis also struck him as plausible. Ichthyol applications had proved fairly efficacious. In regard to boring with nitrate of silver, as suggested by Dr. Wallhauer, the speaker said he had tried that repeatedly, but the patient revolted against the severity of the treatment as compared with the slight benefit received.

DR. LUSTGARTEN said that in so unusual a case as the one under discussion it would be well to reserve a decision until a microscopical examination had been made. The infection was possibly tuberculous, although it does not resemble those cases. As regards its resemblance to seborrheal eczema, the speaker inquired whether we ever got an inflammatory condition of the nose without a seborrheal element?

A Case of So-called Eczema of the Nails.—Presented for DR. GEO. T. JACKSON for Dr. Fox.

The patient was a woman, aged 30, with an affection of the nails which began about six months ago, one month after she had given birth to a child. The ring-finger of the right hand was the first one affected. There was a swelling of the nail-bed and surrounding tissues; this gradually spread from nail to nail and at the present time all the nails of both hands are affected, excepting the first finger of the right hand. The toe-nails are not affected. During the past summer, an eczema appeared on the backs of both hands. The nails are irregular, they have lost their luster, and are somewhat worm-eaten; they are ridged longitudinally and their ends are raised from the nail-bed; some of the nails are broken off longitudinally. The skin over the matrix and furrow about the nails is swollen. When the hands are immersed in water the nails and finger-ends burn and itch.

Dr. Fox said that these cases of nail affections were seen in connection with eczema and also apart from eczema. He would pronounce it a case of malnutrition of the nails, and he hardly saw the correctness of using the term eczema, as applied to it. There is nothing characteristic of eczema in this nail disease, and he consequently thought the term a misnomer.

Dr. ALLEN said that this affection of the nails arises under the same conditions which develop an eczema of the hands or fingers, and an eczema of these parts is usually associated with it or has been present. It is not infrequently observed among dish-washers or bar-keepers. The speaker said he did not consider it inconsistent to classify the affection as an eczema. It is undoubtedly the result of microbial infection and persists so long because it is so difficult to treat effectually by bringing remedies into immediate contact beneath the nail. He thought his plan of excision of a portion of the whole length of the nail a good means to this end.

Dr. KLOTZ said he thought the malnutrition of the nails in this case was originally the result of an inflammation of the skin and superficial tissues surrounding the nails due to infection with pyogenic microbes. He advised strapping with salicylic acid plaster over night as an effective method of treatment, in which pressure would play an important part.

Dr. WINTHOUSE said he agreed with Dr. Fox that these cases were not, properly speaking, eczema of the nails. They are usually the result of general

malnutrition, and get well under tonic treatment: arsenic, iron, hypophosphates, strychnin, etc.

DR. JOHNSTON said he thought Dr. Fox was only partially correct. It is perfectly true that there is no such thing as eczema of the nails, because an eczematous process needs a vascular supply to carry it on. At the same time an eczema of the finger may develop this condition of the nails, and in this particular patient there is evidence of an eczema at the tips of the fingers and on the skin surrounding the nails. As regards treatment, the speaker said the affection yielded only to local measures. He had tried arsenic internally until the physiological effect of the drug was apparent, and had never seen any good results therefrom.

DR. JACKSON said that, strictly speaking, it is just as incorrect to use the term eczema of the nails as it would be to speak of eczema of the hairs. The tissues surrounding the nails are affected, thus interfering with the nutrition of the nails themselves. The patient he had shown complains that her fingers and nails get worse when the hands are immersed in water. She also suffers from eczema of the tips of the fingers. And it would, therefore, seem fair to infer that she had a malnutrition of the nails due to eczema—that is commonly spoken of as eczema of the nails.

DR. FOX said that eczema is one of many causes which may produce nail affections. We frequently see cases where the tissues around the nails are the seat of an eczematous inflammation, while the nails themselves remain perfectly sound. There is nothing in the appearance of these nails which would lead us to associate it with an eczema; while that affection may produce malnutrition of the nails in certain cases, there is nothing characteristic in their appearance, such as we may get in psoriasis. In the latter disease we may get a nail complication which is quite characteristic.

DR. H. G. PIFFARD said the nail affection was not directly attributable to the eczema, but rather to the underlying condition that caused the eczema.

DR. FORDYCE said that in the case under discussion the condition of the nails was very probably of eczematous origin, as the woman was now suffering from eczema of the dorsum of the hands and fingers, including the nail matrices.

DR. PIFFARD said we sometimes see a similar condition of the nails without any evidence of eczema elsewhere on the body.

A Case of Dystrophia of the Nails.—Presented by DR. C. W. ALLEN.

The patient was a woman with an affection of the nails involving three fingers of the right hand. The margin of the nails presented the appearance of an ordinary paronychia. The nail disease first appeared about a year ago, and during that time the patient has had no eczema of the hands or elsewhere. Dr. Allen said that about four or five days ago he cut off an eighth of the width of each of the diseased nails down to the matrix, and swabbed the parts with a three-per-cent. solution of methylene blue, since which time the surrounding inflammation had subsided materially.

A Case of Psoriasis of the Nails. Presented by DR. G. H. FOX.

The patient was a man, 60 years old, an engineer by occupation, and at present an inmate of the New York Skin and Cancer Hospital. He has had psoriasis for thirty years, and during that time he has never been entirely free from it. About five years ago the nails of both hands and feet became affected the dis-

ease sometimes starting at the base and sometimes at the end of the nail. In some of the nails a semilunar depression has been left.

DR. JOHNSTON thought the case might prove to be one of trichophytosis. He had noticed that the nail of one little finger was split and broken, and about one-half of it had disappeared; the appearance of the other nails was also fairly typical of trichophytosis, the discoloration and parallel longitudinal ridges being well marked. In cases of this character the speaker said he had almost uniformly found the trichophyton fungus in the nails. Dr. Johnston also referred to a case of favus of the nails which had recently been shown at a meeting by Dr. Levisseur; the case had resisted various methods of treatment, and finally Dr. Levisseur pulled the nails out bodily under local anesthesia; the operation did not cause much pain, and since then apparently healthy nails have made their appearance.

DR. JACKSON said he had recently seen a case which, from the appearance of the affection, he regarded as dystrophy of the nails; it bore no resemblance to ringworm, but in spite of this, scrapings from the nails were found to be filled with small ringworm fungi.

DR. ALLEN said he did not think the nails in Dr. Fox's case were psoriatic in appearance, although the man said he had had psoriasis of the body for many years.

DR. FOX said that in regard to parasitic affections of the nails, much could be learned by a careful microscopical examination of scrapings from them. In a case of psoriasis of the nails, however, like the one he had shown, the appendages present certain peculiarities which enable us to make the diagnosis. In many cases we have a chalky deposit or a collection of epidermis underneath the nail which raises it; the soft masses underneath the nail may exist for years; finally, the nail becomes thinned and broken and its anterior portion may be lost. In psoriasis of the nails, as elsewhere on the body, the disease has exacerbations, and these disturbances in the nutrition of the nail may cause depressions and ridges on the surface; the ridges are transverse, not longitudinal, such as we see in other nail diseases, nor do we in psoriasis get the thimble-like pittings of the nail or the longitudinal splitting.

TWO HUNDRED AND SEVENTY-THIRD REGULAR MEETING, HELD ON TUESDAY, NOVEMBER 22, 1898.

DR. DANIEL LEWIS, *President, in the Chair.*

A Case of Acne Varioloformis.—Presented by DR. C. W. ALLEN.

The patient was a young woman with numerous lesions on the scalp and forehead. The case was one of acne varioloformis, without any unusual features, and Dr. Allen said that his chief reason for showing it was that at a previous meeting of the Society one of the members had taken the ground that we should not make a separate class of acne varioloformis, but combine it with the general class of acnes. Dr. Allen said he thought such a classification would be unwise, and that acne varioloformis was a disease, *per se*, which should be so regarded and not lose its identity.

DR. MORROW said that Dr. Allen had evidently misunderstood his remarks regarding acne varioloformis made at a previous meeting. The idea he had in-

tended to convey was that many cases of acne are classed as acne varioloformis which are really examples of acne vulgaris.

DR. H. G. PIFFARD said that whenever he heard the term acne varioloformis he was reminded of molluscum contagiosum, to which affection the name was first applied. Literally, the name means a variola-like acne. The speaker said he regarded the name as entirely inappropriate, as we never see an acne resembling smallpox.

DR. E. B. BRONSON said he agreed with Dr. Piffard that the term acne varioloformis, which was first adopted by Kaposi, was quite inappropriate. The old name of the affection, *i.e.*, acne frontalis, was changed when the lesions were described on various portions of the body. The speaker said he regarded the case shown by Dr. Allen as a very good example of the disease to which the name acne varioloformis had been assigned.

DR. J. A. FORDYCE said that in 1893 he had reported on the microscopic findings in two cases of acne varioloformis of the face, and he then showed by microphotographs that it was a disease of the hair-follicles and the communicating sebaceous glands. It commences in the upper part of the hair-follicle. Staphylococci and other micro-organisms were also found, showing that the disease is probably due to microbic infection of the hair-follicles. Dr. Fordyce said the term acne varioloformis was given to this affection because the resulting scars are like those of smallpox. Perhaps the term acne necrotica would be preferable.

DR. A. R. ROBINSON said he did not think the lesions in the case presented by Dr. Allen differed materially from those of ordinary acne, excepting, perhaps, in their location, the anatomical character of the hair-follicles where the micro-organisms take root, giving a somewhat different clinical picture.

DR. ALLEN, in closing, said the term acne varioloformis had probably been applied to this affection because the lesions, in one stage, somewhat resembled those of smallpox, and the resulting scars were also similar to those of variola. As regards the name acne, Dr. Allen thought it was quite as appropriate for this disease as for the lesions of acne vulgaris; both were follicular affections and both probably depended on an infection by micro-organisms, the difference in the lesions being due to the difference in the organism which is at work. That the hair-follicles are affected was quite apparent from the clinical appearance of the lesions, which are confined to the portions of the body in which hairs are found. The speaker said he had observed the lesions in the center of the male chest when that region was hairy, but never in regions devoid of hair.

A Case of Acne Atrophica.—Presented by DR. P. A. MORROW.

The patient was a young man, with numerous small atrophic lesions on both forearms and on the anterior surface of both thighs. They usually appear as papules, sometimes as vesicles, and are apparently localized about the hair-follicles. Later, their center is occupied by a dark plug. The lesions are exceedingly sluggish in their development and evolution, but finally disappear, leaving a scar. As a possible etiological factor, Dr. Morrow mentioned the fact that the patient was employed as a glass-cutter, and while at work, fine particles of glass are constantly coming in contact with his arms; they also filter through the trousers, thus coming in contact with the anterior portion of the thighs. In connection with his work, the patient also handled a compound of lead and block tin, which is boiled, and its scum is used in polishing the glass. This scum is

exceedingly irritating to the skin, producing, after ten or fifteen minutes' contact, considerable erythema and abrasion. A number of cases of lead-poisoning have resulted from the handling of the mixture, and throat and chest troubles are not uncommon among the workmen.

DR. J. A. FORDYCE said the case reminded him of a hydradenitis, excepting that the lesions seemed to be more superficial.

DR. H. G. KLOTZ said that the explanation given by Dr. Morrow as to the origin of the lesions seemed very plausible. Probably, the lesions were not the result of a septic infection, and for that reason there was very little suppuration. They seemed to be more inflammatory in character, such as were likely to be produced if small particles of glass were carried into the skin.

DR. ALLEN said the lesions in this case were very similar to those in two unusual cases which had been shown at previous meetings of the Society, one by himself and one by Dr. Elliot. Before attributing such lesions to any chemical or mechanical irritation, the speaker said he would first wish to exclude everything else.

DR. S. LUSTGARTEN said he was not inclined to accept the explanation given by Dr. Morrow regarding the origin of the lesions in the case under discussion. The patient makes the statement that he has been employed as a glass-cutter for eight years and that he was entirely free from these lesions up to four years ago. He also states that no other workman in the place is similarly affected. If the lesions were due to mechanical irritation or canterization, it was rather unusual that they showed a predilection for one individual. The particles of glass which are thrown off are not hot, and would not be apt to produce such necrotic lesions, certainly not on the thighs, after filtering through the trousers. If they are due to the scum of the lead and tin mixture, we would not expect to have such uniformly circular lesions; they would be more apt to be irregular in shape. In conclusion, Dr. Lustgarten said the lesions reminded him of hydradenitis.

DR. MORROW said he only gave the explanation referred to by Dr. Lustgarten as the presumptive etiology of the lesions; he was not at all certain that it was the correct one. He was keeping the patient under observation, and had advised him to wear a rubber protective over one arm, in order to ascertain whether that would prevent the occurrence of fresh lesions. The objection to the explanation raised by Dr. Lustgarten that the man had worked at this trade four years before any skin lesions appeared was not a very serious one. It is well known that workers in cinchona bark may follow that employment for months or years without developing the irritating effects of the drug, and, furthermore, that only a small percentage of those workmen experience any bad effects whatever. A peculiar susceptibility of the individual seems to be necessary. The fact that no lesions had appeared on this man's face was not surprising, as the arms were close to the field of work and were directly exposed to the particles of glass which were constantly being thrown off. In reply to a question, Dr. Morrow said the seasons seemed to have no effect on the eruption.

DR. FORDYCE suggested that the fine particles of glass might obstruct the hair-follicles or some of the glandular orifices.

DR. LUSTGARTEN said he wished to reiterate that if the lesions on the thighs were caused by the scum of the lead and tin mixture which filtered through the trousers, they would hardly be so uniform and circumscribed as they are.

DR. L. D. BOLCKLEY said that the patient shown by Dr. Morrow had a number of similar lesions below the knees and on the calves, where it would hardly be

probable that any of this irritating mixture came in contact with the skin. He regarded the case as one of folliculitis, of unknown origin.

A Case of Onychia.—Presented by DR. H. H. WHITEHOUSE.

The patient is a strong, healthy man, 31 years of age. For the past ten years his occupation has been ice-cream making and his hands have been regularly submitted to great variations of temperature. In his work, he states that he has to immerse his hands into hot water, then immediately into iced water. The disease of the nails, however, began only last spring, affecting in the order named, the middle, ring, thumb, and little finger-nails of the left hand. Shortly after the ring finger-nail of the right hand became affected and the disease began two weeks ago in right thumb-nail. In June he accidentally cut the extensor tendon of the right little-finger, at which time the nail of adjoining finger was very badly affected. By the time the cut finger healed he noted that the nail on the next finger had entirely recovered, while all the others remained as before. The toe-nails have never been affected. The disease apparently begins at the side of the nail and several can be seen now with a semilunar, dark discoloration at that part of the nail. As it progresses the entire nail becomes discolored and roughened, and eventually it crumbles and is cast off; at the same time there is considerable inflammation of the tissues at the sides and base of the nail.

DR. MORROW said he would be willing to accept the statement made by Dr. Whitehouse that the nail-affection in this case was probably the result of the man's occupation were it not for the fact that he had been employed at this work for many years before the nail disease manifested itself. This was the same objection, Dr. Morrow said, that Dr. Lustgarten had raised in his own case. Objectively, the case shown by Dr. Whitehouse resembled very closely one of syphilitic onychia and paronychia.

DR. H. G. KLOTZ said he thought the affection of the nails in this case was due to local irritation. The same condition is not infrequently observed in bar-keepers, whose hands are more or less continuously immersed in water.

DR. BULKLEY said the location of the lesions at the base and on the inside of the nails warranted the belief that they were the result of local inflammatory causes.

DR. E. B. BRONSON said he differed from those who had expressed the opinion that the nail affection was purely of local origin. He was rather inclined to regard it as a part of a systemic disease. The atrophic change in the nails was well marked and appeared to originate in the matrix. Dr. Bronson expressed the view that if the nail lesions were the result of the man's occupation the skin of the hands would not have remained entirely free from any eruption, as they apparently have. He agreed with Dr. Morrow that the case bore a strong resemblance to syphilis.

DR. LUSTGARTEN said he had repeatedly seen similar nail affections occurring in cooks, kitchen-maids, etc., and he had always regarded them as due to an infection, with or without pus. The disease usually begins in the bed or matrix and spreads slowly. In reply to the remarks made by Dr. Morrow, the speaker called attention to the fact that no analogy could be drawn between a true case of drug eruption—due to quinin, for example, which may only develop after months or years of exposure—an eruption due to the direct cauterizing effect of a drug. The nature of true drug eruptions is entirely unknown.

DR. WHITEHOUSE, who showed the case, said he was still inclined to regard

the affection as being of local origin. While it was rather unusual, as Dr. Bronson had pointed out, that the skin of the fingers and hands should have remained unaffected, still such cases had come under his observation. The fact that the nails had remained unaffected for several years, during which the man had been employed at this same work, might be explained on the ground that the effects of the hot and cold water were produced slowly, or that they only had become manifest when some change in the general condition of the patient rendered the parts vulnerable. Dr. Whitehouse said he agreed with the speakers who had called attention to the strong resemblance of the nails to a syphilitic onychia. He had been unable, however, to elicit any history of syphilis, either present or past. He would place the man on syphilitic treatment, as suggested by Dr. Morrow, and report the result at a subsequent meeting.

DR. MORROW said that in order to clear up the diagnosis he would suggest vigorous anti-syphilitic treatment, in the shape of local mercurial applications to the nails.

A Case of Localized Pruritus.—Presented by DR. H. H. WHITEHOUSE.

The patient is an apparently healthy man of 35 years, a stenographer by occupation. He has never had any illness and nothing can be found at present in his physical condition to account for the itching. His liver action is apparently normal, bowels are regular, he has no indigestion nor has he had any, and the urine is free from sugar and albumen. Eight years ago, when his present trouble began, he did have a little stomach disturbance, which was accompanied by an itchy eruption on the legs; this, however, disappeared in a very short time. For eight years the man has been tormented by this itching and it is peculiar in that it is not especially troublesome at night and that it occurs in spots. He is never a moment free from a circumscribed area of intense itching—so intense sometimes that it is almost unbearable. At his last visit the itching was around one eye, but it may appear on an arm, the leg, on the trunk, or on various parts of the face. There is never any redness or swelling of the tissues accompanying the itching.

DR. MORROW said that from the patient's description of his former lesions evidences of which were still apparent on the arm, the case was probably urticarial in character. The man's skin was evidently susceptible of factitious urticaria, dermographism being well marked. The shifting character of the pruritus also pointed to urticaria.

DR. BRONSON said that whether the patient had urticaria or not, the essential feature of the case was a hyperesthesia of the skin, probably due to a necrosis. The condition might be termed a bad habit of the skin, which is sometimes of reflex origin.

DR. FORDYCE said that factitious urticaria was not infrequently observed in neurotic subjects.

DR. ALLEN said that in factitious urticaria the pruritus is usually not so pronounced. The speaker referred to a man who had presented a localized persistent pruritic patch on the scalp. The itching occurred in paroxysms, and subsequently it was learned that the man had some severe nervous trouble for which he had been under the care of a neurologist for a long time. After his recovery from the latter disease the pruritus also disappeared.

DR. BURLEY said he did not think a diagnosis could be based on the fact that the patient had a factitious urticaria, which is not very infrequent. He regarded

the case as a general pruritus in a neurotic subject. The speaker referred to a man now under his care who complains of a burning and itching sensation across the abdomen and down the thighs, which is more or less shifting in character. The man was sent to a neurologist, who thought the condition was due to spinal irritation, of diabetic origin.

DR. ROBINSON called attention to the importance of ascertaining the cause of these neurotic disturbances of the skin. The speaker said he recently saw two cases of pruritus which were associated with phosphaturia. In some cases "oxaluria" is the cause of the trouble.

DR. WHITEHOUSE, in closing, said that while the case was very similar to urticaria, there were many features in which it differed from that condition. The effect produced by the nail-test was essentially different from that obtained in true factitious urticaria, as it was not associated with pruritus and no welts were raised. The speaker said he agreed with Dr. Robinson that there was in this case a hyperesthesia of the skin of neurotic origin.

A Case for Diagnosis.—Presented by DR. A. R. ROBINSON.

The patient was a young man, 27 years old, who was employed in a powder-magazine. About two years ago, while at sea, he had first noticed an eruption which came out simultaneously on both forearms; the eruption consisted of small papules, many of which were connected with the hair-follicles; the eruption was grouped and itchy in character, and had persisted, with an interval of five-months' duration, up to the present time. During the interval of five months referred to, the man's skin had been perfectly clean; the eruption then recurred in the same locations as before. The first attack had been preceded by a phlegmon on the hand. No constitutional symptoms had ever been noticed.

When the patient came under Dr. Robinson's observation, two weeks ago, he was given a prescription for salicylate of soda, 10 grains four times daily. He returned four days later with a generalized pustular eruption; the lesions were grouped and chambered, and looked very much like the pustules of smallpox. The case was diagnosed as dermatitis herpetiformis. Dr. Robinson said he thought the diagnosis rested between dermatitis herpetiformis and a salicylate of sodium eruption.

DR. ALLEN said the case did not impress him as being one of salicylate of sodium eruption. In the cases he has seen the lesions were larger and there was less pustulation. The speaker said he thought the case shown by Dr. Robinson was one of Duhring's disease, and that this particular exacerbation may have been influenced by the drug taken. Another argument against the assumption that the case was one of salicylate of sodium eruption was the small doses in which the drug had been given.

DR. BULKLEY said the lesions on the buttocks and thighs were quite characteristic of Duhring's disease. As suggested by Dr. Allen, the exacerbation of the eruption might be at least partly attributable to the use of the salicylate of sodium. The eruption in this case differed materially from any which the speaker had seen resulting from the use of that drug. In those cases there was no grouping of the lesions, as in this instance; in dermatitis herpetiformis the lesions are apt to appear in localities where there has been some pressure on the skin, and here the aggravation of the eruption on the shoulders may be due to the pressure from the suspenders.

DR. MORROW said he was not disposed to look upon the case as one of drug eruption. It certainly did not correspond with the usual form of eruption due to the use of salicylate of sodium. The history and peculiarities of the eruption were also different.

DR. WHITEHOUSE said he regarded it as a case of dermatitis herpetiformis, not only from the grouping and general topography of the lesions, but also from the history of relapses. While, therefore, he did not think it was a drug eruption, the salicylate of sodium may have had some influence in provoking an exacerbation of the disease.

DR. FREDERICK H. DILLINGHAM, who had seen the patient at Dr. Robinson's clinic, said he did not think the eruption was caused by the salicylate of sodium. Only 40 grains of the drug had been taken when the pustular lesions began to make their appearance. The patient also states that he has had several exacerbations previous to this one, although not exactly similar in character. The recent eruption, Dr. Dillingham said, differed from any he had ever seen, and, excepting that the lesions were more superficial, it is very similar to a smallpox eruption. The case was probably one of dermatitis herpetiformis.

DR. FORDYCE said that in the cases of salicylate of sodium eruption he had seen the lesions were of a more erythematous type.

DR. LUSTGARTEN said that in the cases of salicylate of sodium eruption which had come under his observation the lesions were in the form of raised purplish spots about the size of a silver quarter, very itchy and leaving pigmented spots for a long time. Their number was usually small. The case shown by Dr. Robinson he regarded as one of dermatitis herpetiformis.

DR. DILLINGHAM said that Dr. Robinson's patient had been put on Fowler's solution a few days ago, and since then the itching had disappeared.

DR. ROBINSON, in closing, said that when he had first seen the case, he regarded it as a classical one of dermatitis herpetiformis, although it did not conform in every respect to the usual descriptions of that disease. In the cases of dermatitis herpetiformis which he had observed there were no chambered, pustular lesions, as in this instance. It was possible that the drug given had influenced the character of the eruption to some extent. The rapid disappearance of the lesions was also unusual in dermatitis herpetiformis. He showed the case to get the opinion of the members if they had ever observed salicylate of sodium cause a pustular eruption, or if they thought the drug had any influence on the character of the lesions of the existing disease.

A Case for Diagnosis.—Presented by DR. J. A. FORDYCE.

The patient was a middle-aged colored woman with papular and crusty pigmented lesions on the backs of the hands and forearms and on the feet. The patient states that the eruption appeared about three months ago, coming out in successive crops; the primary lesions were like hives, very itchy, and on disappearing they left these lesions, which in some instances became necrotic. The eruption at present, Dr. Fordyce said, is strongly suspicious of syphilis, but there is no history or other evidences of that disease.

DR. MORROW said he thought the case was one of syphilis.

DR. KLOTZ said he agreed with Dr. Morrow.

DR. BRONSON said he was inclined to regard the case as one of dermatitis herpetiformis.

DR. ALLEN said the woman acknowledged having suffered from a marked loss

of hair coincident with the appearance of the lesions. This, together with appearance of the lesions on the palms and soles, strongly indicated syphilis.

DR. FORDYCE said that his first diagnosis had been syphilis, but the history given by the woman that the eruption had come out in successive crops and was very itchy had rather inclined him toward the opinion that the case was one of dermatitis herpetiformis.

DR. ROBINSON showed a penis which had been removed, *post-mortem*, from a man who had been under his observation for five or six years. When he had first seen the patient there was a hard patch, about the size of the little finger-nail, on the upper surface of the penis; this spot gradually increased in size until the entire penis became as firm and dense as bone. The patient died a few weeks ago of diabetes. There was no history of gout.

DR. BRONSON regarded the case as one of sclerosis of the corpus cavernosum, probably associated with calcareous degeneration of the vessels.

DR. KLOTZ thought the hardening of the penis was originally of the same fibromatous character as we not rarely find in middle-aged and elderly people, and that later on deposits of calcareous salts produced that bony condition.

DR. JAMES C. JOHNSTON said that the cases of this character which were supposed to be originally fibromatous and subsequently calcareous proved to be cases of endothelioma of the corpus cavernosum. The calcareous degeneration was simply a sheath, the inside being perfectly soft. There was probably simply an atheromatous degeneration, beginning in the vessels.

Selections.

CUTANEOUS DISEASES.

Melanosis Lenticularis Progressiva.—T. M. ROTCH (*Archives of Pediatrics*, vol. xv, p. 881, 1898).

Two sisters, seven and six years of age, suffering with the disease, came under the author's care. No family history. Freckles appeared on the face and arms of the oldest girl when she was three months old, growing larger and becoming soft and fleshy. She has been operated on eight times by curetting and skin-grafting, but the lesions recurred in the scars. Nothing abnormal was detected in other organs. The urine was normal, the blood contained three per cent. of eosinophiles. The child has been treated with the mixed toxins of streptococcus erysipclatis and bacillus prodigiosus, $\frac{1}{4}$ of a drop being given subcutaneously and increased daily; when 1 drop was reached a reaction took place, the temperature rose to 102° F., with headache, vomiting, and photophobia. The dose was then increased by one drop nearly every day until thirteen drops were reached. The soft growths became smaller and less moist. The crusts fell off and several warty growths disappeared from the face, neck, and backs of the hands. When the treatment was omitted two days a very rapid relapse took place and new soft and horny lesions appeared. On resuming the treatment improvement was noted in twenty-four hours. No special effect was noticed when the injections were given in the forearms. Sun-line always aggravated the disease and when the child was placed in a darkened room, improvement was noticed at once, not to be ascribed to toxins. The dose was increased to 18 drops, but the child appeared to become habituated to the toxin and it became harder and harder to get a reaction and to control the lesions, an omission of one day in the treatment causing a marked relapse.

The other sister developed the disease when she was five months old. She has the same lesions as her sister. She was placed in a large box and light was admitted through panes of glass of various colors, red and green. She was exposed to the red rays from January 24th to March 4th. During this time the fleshy masses at the corner of the eyes became much smaller and dried up to a thin, white crust, but no general improvement was noticed. For a month the green glass was substituted for the red, and no improvement was noted. The combined toxins were again begun with no good results. Microscopical examinations of a specimen of tissue from one of the facial tumors showed typical epidermoid cancer.

The Mouth-Irrigator of Professor Giov. D. Ajutos, Bologna.—*Zeits. f. med. Wiss.*, Bologna, October, 1898, ref. *Monat. f. prak. Derm.*, xxvii, p. 603-604, 1898).

In order to disinfect the mouth, it is not sufficient to gargle it in the usual manner. The author devised an apparatus by means of which the mouth can be

washed out by a steady stream. The apparatus is placed in the mouth, which is tightly closed. One of the two tubes, which are attached to the apparatus, is connected with an irrigator. On being raised a stream formed of diverging jets is sent into the mouth cavity, from which the liquid can be diverted through the second tube of the apparatus to any vessel, placed below the level of the mouth. The author affirms that he has obtained very satisfactory results, especially in mercurial stomatitis. Boiled water with or without borax, permanganate of potash, bicarbonate of soda, etc., was used for disinfecting.

A Review of the Pathology of Superficial Burns, with a Contribution to Our Knowledge of the Pathological Changes in the Organs in Cases of Rapidly Fatal Burns.—CHARLES BARDEEN (*Johns Hopkins Hospital Reports*. "Report in Pathology," vol. vii, No. 3, pp. 137, 1898).

The material for this study was obtained from five children who were so severely burned that they survived only a few hours. The autopsy upon the cases were made very soon after death, while the bodies were still warm, and in one instance made within an hour.

Before giving an account of his own investigations, the author gives a masterful, critical review of the previous work, both from human autopsies and from experiments upon animals, dealing with this subject. After consideration of the various theories advanced as to the probable cause of death in such cases, he excludes the nervous system as an active factor in the process and does not consider thrombosis an important factor. He is inclined to accept the death of the five cases studied by him as the result of an acute toxemia, due to alteration in the blood from the presence in the plasma of poisonous substances, the nature of which and the mode of origin are at present mere matters of conjecture. An objective proof of the presence of highly virulent toxins in the blood, he sees in the alterations in the lymph nodes, which were affected in an interesting and specific manner. Wherever lymphocytes were seen collected into nodular masses, from the small nodules in Glisson's capsule in the liver to the largest lymphatic glands, these alterations appeared. The chief gross pathological changes noticed in the five cases were cloudy swelling of the liver and kidney, softened and enlarged spleen, and, above all, swollen lymphatic glands and gastro-intestinal lymph-follicles. The hyperemia of the thoracic and abdominal organs was moderate. Microscopic examination showed local degenerations in the lymphatic tissues and liver, and advanced parenchymatous degeneration of the kidneys. Cultures for bacteria gave negative results except for the micrococcus lanceolatus in the lungs of one case. A complete bibliography accompanies the article.

A Case of Rare Skin Disease (Acanthosis Nigricans).—S. A. BARSKY (*Wratch*, p. 957, 1898).

Before reporting his own case the author gives a full description of the clinical aspect of the disease, its skin and general symptoms, which he gathered from careful study of the twenty-two cases already published. In his own case outside of the usual symptoms characteristic of this affection, the following features are worthy of consideration: (1) the disease began when the patient was two years old—the youngest case on record; (2) it has lasted for more than eleven years; (3) carcinomatous degeneration of internal organs is absent, the

general health being good; (4) all characteristic symptoms of the disease were well developed, and simultaneously with the hypertrophy of the skin, atrophy of the pigment, vitiligo, and atrophy of the papillæ could be noticed; and (5) itching was present.

Dystrophie Papillaire et Pigmentaire (Acanthosis Nigricans).—TH. SPIETSCHKA (*Arch. f. Der. und Syph.*, vol. 44, p. 247, 1898).

Of the three cases—two women and one man—one deserves special attention regarding both the development and the disease. The patient, a woman of twenty, after a successful confinement, suffered from hemorrhages, which, six months after confinement, ceased and a profuse meat-colored discharge appeared in their place. At the same time she began to feel an itching sensation around the genital organs, under the armpits, around the lumbar regions, under the breasts, and a change in the color and consistency of the skin of these parts. The skin was rough and dark. On account of the discharge from the uterus and the accompanying fever she entered the gynecological ward, where a deciduoma malignum of the uterus was removed and five months after the operation the pigmentation and the roughness of the skin disappeared entirely and the skin recovered its former normal aspect. The author gives a full histological description of the tissues examined.

A Case of Keratosis Nigricans.—ISADORE DYER (*New Orleans Med. and Surg. Jour.*, vol. 51, p. 201, 1898).

An Italian boy, aged seven years, presented himself with the following condition: The whole body, with the exception of the angles of the mouth and the lower vermilion border of the lips, was quite dark, covered with an absolutely symmetrical and bilateral eruption of the flat, sessile warts, slightly elevated and varying in color from a dirty drab to a chocolate-brown. The skin of the whole body was quite dark, the only normal skin being at the angles of the mouth and the lower vermilion border of the lips, where it was almost abnormally white. The head presented an almost complete baldness and was covered with a mass of thickened, cornified tissue. Eyelashes and eyebrows were absent. The eruption on the ears was black and to the touch the patches gave the sensation of the roughness of a nutmeg grater. Disseminated papules, in groups, patches, and clusters covered the face. The neck, shoulders, legs, elbows, and knees presented a thickened appearance. The hands and feet were thickened, the dorsal surfaces being distinctly cornified. The plantar and palmar surfaces were simply thickened, on the hands showing an almost translucent callosity. On the coccyx a butterfly patch, deep in color and thickened, could be seen. The end of the foreskin was likewise thickened. At no point of the body, legs, arms, face, and neck were there any scales, while on the scalp the scales were plentiful. The general health was in no way affected. Dr. B. A. Pope, after examining the eyes of the patient, reported that on the lower part of the left cornea a large, diffuse infiltration, with a little superficial ulceration, is present, which he regards as phlyctenular keratitis and as a complication (not a part of skin disease) due to depressed nutrition.

The Exanthemata of Tuberculosis (Darier's "Tuberculides").—CÆSAR BOECK (*Arch. f. Derm. und Syph.*, vol. 42, pp. 71, 175, 363, 1898).

Under the name of exanthemata of tuberculosis, the author gathers the forms of skin eruption in which, in spite of the most searching endeavors to find it, the tubercle bacillus could not be demonstrated. Nevertheless, the eruptions generally occur in subjects who are inclined to tuberculosis and in whom, sooner or later, the infection becomes visible. He considers first lupus erythematosus disseminatus, giving, after reviewing the literature, the histories of twelve cases. In some of them the disseminated form occurred simultaneously with the discoid variety. In certain instances it was possible to demonstrate the gradual transition of lupus erythematosus disseminatus into lichen scrofulosorum. In his opinion the two varieties, disseminate and discoid, just mentioned, are without the slightest doubt connected with tuberculosis. Microscopically, both affections present the same features, and owing to this and the symmetrical arrangement of the cutaneous symptoms, he considers that both are due to toxins, and suggests the name of lupus exanthematicus for them.

Next he considers eczema scrofulosorum and cites two characteristic cases. This form occurs in older children and adults and is characterized either by infiltrated, reddish spots or by carinate or gyrate papules, which are covered with scales or crusts. The anterior or posterior surfaces of the trunk, the external region of the forearm, the anterior surface of the lower extremities, and the hairy portion of the scalp are the localities commonly attacked by this form of eczema. The eruption is usually symmetrical, is accompanied by very mild itching, and does not easily yield to treatment. The last form considered by the author is lupus erythematosus discoides. From his thirty-six tabulated cases it is evident that this form occurs chiefly in patients suffering from scrofulo-tuberculosis. He is of the opinion that it does not present a pure tuberculosis of the skin, but that it is the outcome of the effect of the toxins of the tubercle bacillus upon certain skin areas, the sites of predilection being determined by the vasomotor trophic centers. The absence of the tubercle bacillus, the striking symmetrical arrangement of the lesions, the supersensitiveness of the spots—a point to which the author draws special attention—confirm his view.

Miliary Tuberculosis of the Skin and Adjoining Mucous Membrane.—M. KAPOSI (*Arch. f. Der. u. Syph.*, vol. 43, p. 373, 1898).

A critical review of the published cases concerning the foregoing disease precedes his conclusions, which he based upon a vast number of cases in private and hospital practice, and especially upon the detailed histories of twenty-two cases, which were treated during a period of seventeen years in the Vienna Dermatological Clinic. The disease usually occurs between the twenty-eighth and sixtieth year and mostly develops in a period of some weeks or months. Rarely does it require years for its development. Of the 22 cases, 8 had the lesions only on the skin, and 8 both on the skin and mucous membrane. In 12 cases in which a post-mortem was performed other organs, as lungs, pharynx, intestines, and testes were involved. The ears, nose, lips, chin, anus, and elbows were the localizations where the disease usually developed. Clinically, the affection appears as a superficially infiltrated ulcer with undermined edges and pale-red border and floor, which is extremely painful. Very often small tubercles, like

comedones, can be seen near the edges of the sore, which in time themselves break down, thus adding to the ulcerated area. Regarding the mucous membrane, the lesions are usually found on the lips, cheeks, tongue, palate, nose; more rarely upon the vulva, vagina, urethra, and bladder. The following conclusions are drawn: (1) True miliary tuberculosis of the skin is a clinical entity, quite different from lupus and other tubercular skin affections; (2) it occurs oftener than is usually thought; (3) it appears mostly in patients suffering with tuberculosis of other organs, chiefly of the respiratory tract, but not, as usually accepted, in the last months of the patient's life or in acute miliary tuberculosis of internal organs; (4) the affection of the skin is usually combined with an involvement of the mucous membrane, but often the skin alone is attacked, and (5) both local skin and mucous membrane lesions can be healed by appropriate medicinal and hygienic measures.

A Note on Tuberculosis of the Skin.—O. ROSENTHAL (*Arch. f. Derm. u. Syph.*, vol. 44, p. 151, 1898).

In the case published by the author several forms of skin tuberculosis, known under various appellations, were present simultaneously on various portions of the patient's body, which fact may be regarded in a way as an indication that a close relationship exists among all forms of skin tuberculosis. The face of the patient was covered by tubercular forms of lupus, the forearm presented an ulceration with fungous granulations, which the author regarded as a scrofuloderma. Upon the right dorsal aspect of the head a half-dollar-sized patch, presented the characteristic features of Riehl and Paltauf's verrucous lupus. The primary lesion was located upon the face, from which the disease was transferred to other portions of the body. Tubercle bacilli were found in all portions, although in very small numbers. Histologically, nothing new was found.

SYPHILIS.

Reinfection with Syphilis.—V. K. BOROWSKY and N. S. SPORANSKY (*W'atch*, xix. pp. 1250 and 1268, 1898).

Borowsky personally saw the first attack of syphilis in his patient—hard chancre, swollen glands, secondary eruption—and treated him for the first two years. During the first outbreak the patient received thirty-two sublimate ($\frac{1}{4}$ of a grain) injections and some (?) iodid of potash. When in the second year a relapse occurred, fifty inunctions with mercurial ointment and some iodid of potash were administered. The patient, although he did not have any visible symptoms of syphilis after the second year, received during the following three years fifty sublimate injections and thirty inunctions.

Eight years after the first attack, and three years after the last treatment was finished, the patient appeared again before Borowsky with hard, swollen inguinal and cubital glands and a sore upon the penis, not on the site of the first ulcer, which sore developed two weeks after coitus. Two months after the suspected

intercourse, fever and a marked roseola and papules over his trunk and extremities appeared, with mucous patches upon lips and tonsils.

Sporansky's patient was seen at the time of his first attack of syphilis by the author and Professor Pospelow. Four years after the first attack and two years after the occurrence of the last syphilitic symptoms, the patient was presented again by the author to Professor Pospelow, with a hard chancre in the sulcus glandularis, accompanied with hard, swollen inguinal glands. Two months after the appearance of the chancre a pustular ecthymatous syphilide was seen upon the right shoulder and a gumma upon the left tonsil. The patient had during his first attack of syphilis the same severe manifestations after his primary sore.

A Case of Syphilitic Reinfection During the Persistence of Symptoms of an Old Syphilis.—A. Z. TCHYEHANOWITZ (*Wratch*, xix, pp. 1251).

A patient twenty-four years old was admitted to the hospital with a hard chancre behind the sulcus of the penis, with swollen, hard, lymphatic glands and with a typical gummatous ulcer in the middle portion of the right crus, with periostitis of the tibiae and cicatrices. He could only state that the scars were of two-years' duration and the gummatous ulcer of a year-and-a-half duration. He was never treated either by mercury or by iodid of potash. The hard sore on the penis appeared a month after the last coitus. After a two-months' treatment with injections of salicylate of mercury and iodid of potash the hard chancre was absorbed, the gummatous ulcer healed; only the inguinal and right cubital glands and the glands of both armpits and neck remained hard and swollen. In this condition the patient left the hospital, to return two months later—six months after the appearance of the primary sore—with syphilitic roseola over nearly the whole body, two moist papules, in the sulcus of the penis, moist papules near the anus—all of four-days' duration, and periostitis in the tibiae, which appeared one month after he left the hospital.

The Treatment of Syphilis with Injections of Sublimate in High Doses.—

KAPPER (*Prag. med. Woch.*, No. 1-4, 1898).

The favorable report of Lukasiewicz induced the author to try this method of administering sublimate. He injected a five-per-cent. solution of sublimate in the superior gluteal region on the line connecting the two trochanters. The injections were made every five to eight days with a needle 3 to 4 cm. long.

Out of 127 patients—498 injections—only twenty per cent. complained of infiltrations, which rapidly disappeared. Stomatitis occurred in fifteen per cent. and diarrhea in twelve per cent. in the first twenty-four hours. The results cannot be favorably compared with the effects produced by innunctions. Although sublimate injections are more painful than injections with salic. of mercury, the author prefers the former on account of the absence of dangers produced by the accumulation of mercury; insoluble salicylate of mercury is used. Professor Tarnowsky (*Bulletin génér. de therap.*, vol. 130, p. 15, 1897), administered 176,000 injections of salicylate of mercury with only twelve abscesses and without a single undesirable symptom due to mercury.

The Frequency of Lung-Embolism after Injection of Insoluble Mercurial Preparations.—F. EPSTEIN (*Arch. of Derm. u. Syph.*, vol. 40, p. 262, 1897)

The vehicles for the different kinds of the insoluble injections consisted either of liquid paraffin or olive oil, and in ninety-two cases of aluparin, olive oil and water. Of 908 patients who received 8292 injections, only seven lung-embolisms, which passed away without any serious results, occurred. The author ascribes the good results to the technic used in administering the injections and to the selection of the exterior upper portion of the buttocks as the place for injections.

Therapeutic Notes.

The Intravesicular Bulb in Operations upon the Bladder.—F. REBER (*St. Louis Med. Gaz.*, June 1898) presents an instrument having the appearance of a Nelaton catheter. It is of rubber, having a bulb at the end which can be distended to a diameter of five inches. It is introduced by means of a staff. The staff is then withdrawn, and a Danielson's syringe is used to inflate the bulb. (The syringe is used experimentally before the introduction of the bulb to gauge the amount of distention desired.) The bulb having been distended and a clamp having been applied externally, suprapubic cystotomy is done in the usual manner; fixation ligatures are placed and the incision is made, taking care not to cut the bulb. Then the clamp is removed and the bulb collapses, permitting of inspection of the interior of the bladder. The bulb, which has not been removed, is then re-inflated, allowing a proper approximation of the wound margins, suturing, etc. The author has also used this bulb to distend contracted bladders.

Treatment with Prostatic Gland.—ORAISSON reports seven cases of prostatic hypertrophy with retention, which he treated with a preparation of the prostatic gland (*Gaz. degli Ospedali*, May 10, 1898). The dried and powdered gland was given in pill form—from 3 to 12 grains daily—or a glycerin-extract in doses of from 2½ to 7 dr. daily. Of the seven cases five were cured, one was greatly improved, and in one there was no result.—*Med. Surg. Bulletin*.

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A STUDY IN THE TREATMENT OF ACUTE GONORRHEA.¹

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GENTLEMEN: My apology for appearing before you with a paper on this subject is that the treatment of this trouble is by no means on a settled basis and the method here to be described differs somewhat from that ordinarily pursued and is one that has, after a somewhat extended experience, proved to be the most satisfactory in the majority of cases.

The cases which form the basis of this study are taken in great part from dispensary work done between May 20 and August 20, 1898, the acute cases only being selected for this purpose. The history in each case was taken, the number of the attack, the length of time it had existed, the length of the incubation, the length of time since patient had last urinated, and the character of the discharge were noted. A specimen of the discharge was obtained on a slide and stained each time the patient came, and the appearance of the urine as passed into two glasses was also noted. The importance of holding the urine as long as possible, at least three to five hours before coming for treatment, was carefully impressed upon each patient, so that those coming early in the morning very frequently had held their urine from the night before, and generally those coming

¹ Read before the Academy of Medicine, Surgical Section, Buffalo, January 1899.

toward noon had not urinated since early morning. So that the length of time that the patient has held his urine before examination has varied from between three and ten hours, and even longer.

The treatment was administered only once daily, Sundays and holidays being omitted. If a day is omitted the progress of the case is naturally retarded.

As briefly as possible, the treatment pursued was as follows: The anterior urethra is thoroughly flushed out with a hot solution of permanganate of potassium (1-4000), the temperature ranging from 110° to 115° F. and in some cases even to 120° F., always flushing it inch by inch by inch by grasping the penis between finger and thumb at each point until the furthest point that can be grasped is reached; then only is the fluid allowed to pass back to the cut-off muscle. If the anterior urethra only is involved, the anterior urethra only is irrigated, then the patient lies on a table, and the urethra is gently filled to distention with a two-per-cent. solution of protargol by means of the ordinary urethral syringe (one holding 2 to 3 5 being preferable). The patient grasps the glans close to the meatus as possible, holding it for about ten minutes. The meatus is then closed with absorbent cotton and gauze bandage, which is thrown away at the next urination. When a patient is receiving his first irrigation he must be carefully watched and immediately made to lie down to receive the injection. This is done to avoid as far as possible the faintness which may accompany the first treatment.

If the posterior urethra became involved the treatment differed somewhat in the different cases. Those who readily learn to relax the sphincter, allowing the bladder to fill from the meatus; were generally irrigated in this way, emptying the bladder immediately. If they do not readily learn this, after the anterior injection with the protargol had been made, a soft-rubber catheter, sterilized, 12 to 16 F., having the eye near the tip, is lubricated with glycerin or lubrichondrin and gently passed down the urethra to a point just entering the posterior urethra, and half an ounce of two-per-cent. solution of protargol slowly injected through it, which the patient immediately urinates out. In some cases it is important to see that the bladder is empty, then the catheter is passed into the bladder, the urine allowed to flow out, and one-half ounce of the protargol injected into the bladder. Then, as the catheter is gently withdrawn, more of the solution is injected through the catheter during its withdrawal. The passing of the catheter thus into the bladder is only done in certain cases, where it is evident that the patient does not completely empty his bladder, and in certain chronic cases, but as a routine treatment in acute posterior urethritis it is to

be condemned. An important suggestion at this point is that the catheter should not be used while an inflammatory condition of the anterior urethra exists, unless the symptoms in the posterior urethra are of such a degree as to call for immediate treatment; a few days' wait may prove better, as a rule.

A valuable aid in posterior urethritis and in some severe cases of anterior urethritis, in cases, further, where, on account of a hypospadias irrigation is difficult, has been found to be a pill or capsule containing one or two grains of methylen blue and four grains of boracic acid. A rather serious objection to it is the color of the urine, as it may stain the patient's underwear unless great care is exercised by him.

In all these manipulations the utmost gentleness is observed and naturally is of the greatest importance, and minute attention to details is also important. The proper performance of irrigation has to be learned, just as the proper method of passing a sound or any other manipulation upon as sensitive an organ as the human urethra has to be learned. I have seen as many severe complications occur from improperly conducted irrigations as from other unwarranted severe applications to the urethra. Then, too, the gonococcus must be treated with respect; it can be coaxed, but if roughly treated, it reacts with increased virulence.

In some cases where the acute stage is advanced and the urethra extensively inflamed, if the patient shrinks from the irrigation, it is omitted the first day or so, the protargol (beginning with one per cent.) alone being used, and the pill of methylen blue and boracic acid given, warning the patient that it will change the color of his urine. Then after his confidence has been gained, irrigation is also employed. The stronger solutions of permanganate have generally proven of too great discomfort in the majority of cases in private practice, and even 1-4000 is not well borne in the posterior urethra in some few very sensitive cases.

The method employed in obtaining the smear for staining and microscopic examination varies according to the case, the object being to obtain the secretion from the urethra uncontaminated by material from the surface of the glans. If a good-sized drop of pus can be obtained at the meatus, it is caught on a slide, without rubbing it over the meatus, or it is well to wash off the surface of the glans before attempting to obtain secretion. When there was only slight moisture the secretion was obtained by means of a sterilized platinum loop passed into the urethra or the urethral threads are caught with a pipette from the urine, washed, and then placed on the slide, spread out, and stained.

In private practice the method of treatment differs somewhat. The

patient is examined and a smear taken, he is then irrigated with a full quart of the permanganate, while sitting on the edge of a chair on a folded towel, the trousers and drawers are pushed down below the knees, and a clean towel, folded once, is laid over the clothing between the knees. Another towel is rolled around the left shirt cuff. The patient is given a pus-basin to hold in the left hand to catch the irrigating fluid. When the basin is nearly full, he empties it into a jar or wash-basin on his left. The operator sits in front, a little to the patient's right, and grasps the penis with the left hand, holding and manipulating the irrigator with his right hand. Very seldom is there any spattering of fluid. Then, as above described, the patient lies on a table to receive his injection of protargol in one- or two-per-cent. strength, generally the latter. While the patient is holding the injection the slide is stained and examined under the microscope. Some cases have been met with in whom it seemed advantageous to cocaineize the anterior urethra with a one-per-cent. solution before using the protargol, though this is avoided if possible. The protargol in this strength frequently burns but seldom seems to irritate.

The typical course of a case which has come within forty-eight hours after first noting the discharge is about as follows: The first visit is apt to be in the afternoon. The second, if possible, the next morning at eight, the patient holding in his bladder the urine from over night. The discharge at this second visit is slight and but few gonococci will be found. The next visit is to be at 6 or 8 P.M., the urine having been held at least three hours. The discharge is very slight, numerous pus-cells in the field; often, however, no gonococci to be found. Next visit the following morning at 8. Some edema about frenum, but no discomfort. Pus-cells will be found and perhaps a few isolated pairs of gonococci. The next visit that evening at 6 or 8; pus-cells, but no gonococci; edema of frenum about the same; discharge thin, inclined to be watery, and very slight. The next visit then is made in twenty-four hours; edema almost disappeared; sometimes there is a slight rustiness, due to a tinge of blood, in the very slight watery discharge; sometimes, after long search, one or two groups of intracellular gonococci may be found, and in favorable cases—in fact, in most of the cases of this group—no gonococci are seen again after this. The patient notes that on getting up in the morning there is rather more discharge than at any other time (this, frequently examined, will be found to contain pus, epithelium, and fibrin). Patient comes once each of the next two days and this finishes the first week.

During the second week he comes every other day. He may con-

tinue to have a watery discharge, hardly amounting to more than moisture and composed largely of epithelium, though pus-cells may still be present. This diminishes steadily during the week. The third week he may be seen twice, then he should report again in seven days. There is then generally no moisture, the first glass may contain a faint floating mucous shred composed largely of epithelium. He then is tested by drinking beer freely, either for forty-eight hours or during the following week, and then presents for examination. He is then told to live his ordinary life, to avoid coitus, and advised to report in a month, but to report at once if anything goes wrong. At this last visit he is carefully examined, prostate and seminal vesicles being examined also. This usually closes the attack.

He is cautioned in case of reinfection to come at the earliest possible moment and have an examination made, and not wait to see if it is going to develop into a clap. It is either clap or it isn't and this can be told at the earliest appearance of a discharge.

Sometimes in the second or third week bacteria will appear in the slight moisture which is obtained for examination. Not infrequently diplococci are seen; these are generally of large size, not intracellular, and in some cases in which cultures were made they have been proven not to be gonococci.

It seldom seems necessary to use astringent injections to bring the urethra back to a normal state, the so-called aseptic stage seems to go on to complete healing without them.

The above description applies to the average case coming early. In some cases, not a few, it has been my good fortune not to be able to find gonococci after the first treatment, though the treatment has, as a rule, to be kept up, as in two or three instances where treatment was omitted too soon the gonococci have reappeared and then it has taken a rather longer period for their complete removal.

In classifying and studying the tabulated results it has seemed important to separate and study by themselves primary gonorrhoeas. The urethra that has once had an attack, as a rule, reacts differently to the gonococcus and it is apparently often easier to dislodge the germ. Though exceptions to this observation will be found. The manner in which a reinfection begins is often very different in a multiple attack. It begins rather mildly and takes a longer time to reach the point where acute symptoms are felt than in a primary attack. The patient notices a slight discharge, which gives him no discomfort, so he is apt to wait; in fact, patients are often taught to wait for the more acute symptoms to appear, when the microscope can generally settle this point in a moment. In the primary cases, on the other hand, the acute symp-

toms develop rapidly. In neither of these two classes of cases, however, have I ever noted what some call the mucons stage; the discharge, whether slight or abundant, is always purulent from the earliest point.

Not to bore you by reporting the individual cases, I shall note only those which presented points of peculiarity, and to myself of interest, in each of the classes of cases studied.

First, it should be unnecessary to call attention to the fact that the dispensary work is not done under as favorable conditions as those in private practice. They cannot come as often and the fact that Sunday is omitted is an important factor. There are two reasons for not providing the patient with an injection to use himself. (1) No patient can really treat himself intelligently. (2) He is not so regular in attendance if given the medicine to use himself.

Of the cases observed there were 105; of these, 34 had disappeared from treatment too soon to form any conclusion, some having received only one treatment and others three or four. In some instances friends have reported that they were all right and did not need further treatment.

Of the cases coming for a longer period there were 71. Those coming with a first attack were 46 in number; 16 came within forty-eight hours of the beginning, 20 came between the third and seventh day, 10 came after the disease had lasted between ten days and three weeks. It is natural to suppose that there should be some differences noted in these different classes; the difference in the average is slight if 3 prolonged cases in those coming between the third and seventh day are thrown out.

Of the 16 cases, the average time for final disappearance of the gonococcus was fourteen days; average length of treatment, twenty-one days; 1 case failed. Of the 20 cases, 3 were prolonged, 2 practically becoming chronic; in the remaining 17, the average number of days before final disappearance of the gonococci was seventeen days; average length of treatment, twenty-six days; of the 10 cases, the average time for the gonococcus was eleven days; average length of treatment eighteen days. These figures are of but little value, many of the cases would disappear for a few days, thinking they were all right, and return with a return of the discharge; others would omit a day now and then for lack of time to come.

The cases presented marked differences in their severity, more especially in the infection of urethral follicles, to which, in the majority of these cases the difficulty of the final elimination of the gonococcus seems to be due.

In the uncomplicated cases the apparent rapid and final dislodge-

ment of the gonococcus seems remarkable. The comparative comfort of the patients during treatment is worthy of note.

Typical examples are: 3512, a baker, who worked long hours and at night; first attack; had noticed his discharge forty-eight hours before coming; incubation seven days; had a frank, purulent discharge; gonococci typical and numerous. Under treatment the gonococci were found four days; treatment lasted ten days. Observation covered twenty-three days.

5790; first attack; discharge for twenty-four hours; gonococci found for four days; treatment lasted ten days; observation covered thirteen days.

5474; first attack; discharge for forty-eight hours; gonococci found for eighteen days, but the patient omitted to come for four days, which accounts for this. Treatment, four weeks; was seen for a period of five weeks, after all treatment had ceased, during which beer and coitus had been indulged in and no sign whatever could be noted. Patient is now under treatment for syphilis, contracted during this period of observation.

4905; first attack; discharge for twenty-four hours; incubation four days; gonococci found two days; treatment three days, when patient did not return. This case should be thrown out, but he is the brother of a patient who has had frequent need of the dispensary treatment, who assures me that his brother was all right; although he frequently promised to bring his brother for examination, and has himself been under my care since, the man has never appeared.

Case presenting peculiarities.

5122; had a bad case of hypospadias, presenting a pin-hole opening beneath the penis, three-fourths of an inch from the end of the glans; discharge for twenty-four hours; incubation five days; had a considerable purulent discharge, and was already suffering from ardor urinæ; typical gonococci; on account of formation of penis this patient could not be irrigated, but was injected with protargol, two per cent., the point of the syringe with difficulty could be engaged at the urethral opening. He was also given the pill of methylen blue.

Gonococci disappeared on fourth day and patient did not return for four days, when the gonococci had again reappeared; they again disappeared after six-days' treatment, and a few days later bacteria could be found but no gonococci. Patient was treated for twenty-two days, during which time he was absent ten of the days. Observation covered thirty-six days, when patient was discharged.

4570 presents peculiarities I had never before met with, but have since then had an exactly similar case. Patient came thirty-six hours

after an intercourse; had never before had venereal disease. Just below the meatus and to the right of the median line was a very superficial vesico-pustule, just skinned over, containing pus. The urethra absolutely clear. Patient feared a chancre. I took a smear on a slide, but did not immediately examine it, gave him calomel powder to apply to it, and told him to report in a day. After he had left the dispensary the slide was examined and found to contain gonococci. Patient returned in six days with a beginning typical urethral discharge; the pustule was then found to be really the mouth of a para-urethral follicle, which could be felt as a thickened cord running back parallel to the urethra and beneath it for one-half inch, evidently a duct. Patient said that all his life after urination he could squeeze moisture out of the glans at that point.

With six days omitted, gonococci lasted twenty-six days; posterior urethra never become involved. Treatment carried on thirty-six days, of which twelve were omitted. Observation for forty-eight days. The follicle apparently communicated with the urethra at its post-extremity. Gonococci were frequently sought for, during period of observation, within the sinus as well as urethra; to all appearances they had disappeared.

3510; a pedler; first attack; had had urethral discharge three days; incubation five days; treated for two days, and absent three days, when he returned; discharge was profuse, very painful, but urethra through its entire penile length gradually became thickened as if the entire thickness of the mucous membrane were involved. Erections were painful. The man could only come five days a week and omitted two consecutive days. I treated this man personally, giving him one treatment at my office in the evening, the second at the dispensary in the morning. Naturally in such a case treatment was prolonged, discharge very rapidly was reduced to a slight amount, but gonococci persisted. They disappeared finally on the twenty-fifth day, seven days being omitted. Treatment lasted thirty-one days. Observation continued two months longer at intervals, patient during that time indulging freely in beer. He showed every evidence of being absolutely cured as far as present means of investigation go. Three months later, after repeated sexual intercourse, he returned with a beginning discharge, which was rapidly overcome, the case then following a typical mild course.

3734; first attack; discharge for twenty-four hours; incubation either three or ten days; discharge slight, though purulent; gonococci present. The next morning, although he had not urinated for ten hours, no gonococci were found. Treated three days longer; at each coming, loop had to be used; no gonococci found. Treatment then

omitted for four days, when gonococci were obtained by means of the platinum loop; they were after this found daily, except on the omitted days, for twenty-nine days, although seldom during that time was there enough discharge to more than glue the meatus together. Never did any severe symptoms appear. The posterior urethra always clear. The first glass of urine passed was almost always clear, though on some days cloudy, while second glass was clear. Anterior urethra only treated. It was believed that there was an infected urethral follicle, but the meatus was too narrow for the endoscope. It should have been enlarged but the amount of material was so slight and the number of gonococci (which were always intracellular) were so few that if was hoped the case would clear from day to day; after they had disappeared the second time they disappeared definitely. Of the 26 cases only one, 5126, left treatment before the gonococci had ultimately disappeared; he was under treatment thirty-seven days.

5791; first attack; discharge forty-eight hours; incubation six days; gonococci disappeared on the fourteenth day, but quickly reappeared, some days disappearing and reappearing; urethral follicles near the meatus were discovered by the endoscope infected and were incised; posterior urethra never involved; discharge often only obtained with the loop. After two-months' treatment (sixty days) protargol was reduced to one-per-cent. and gonococci definitely disappeared in forty-eight hours; observation one month longer; case remained permanently free from any evidences of disease.

The last case which I shall quote is 4773, who was under treatment almost daily, except Sunday, for five months before finally free from evidence of disease; first attack; three-days' discharge; seven-days' incubation; patient very faithful; never suffered from any of the discomforts of a gonorrheal attack; posterior urethra never found involved; one-fourth inch within urethra was an infected follicle in each side, which could be readily seen on opening widely the lips of the meatus. A minute drop of pus could be seen oozing from each follicle; gonococci nearly always found. Most of the time the rest of the urethra apparently free and healthy, but every little while there was evidence that the urethra was reinfected. This case finally cleared and has remained clear now for two months. Attempt to destroy the follicles seemed to fail. Electricity, galvanism, with the slender needle like those used to destroy the hair-bulb might have been successful but was not attempted. It was gratifying to see the case finally yield.

The expression "cure" has been carefully avoided. We see women capable of giving the disease in whom no amount of careful search reveals the offending microbe, its habitat being overlooked. It seems

as if these cases in men, even though clinically and as far as the microscope and culture-media can go, were well, yet who will guarantee that these follicles may not remain a nesting place for the latent gonococcus, to which its own urethral habitat has become immune. All that can be claimed for them is that they have been rendered as near well as our powers at present are able to judge.

A last word as to the cases with a multiple attack: There were 17 who came within forty-eight hours of the beginning of attack. Every one of these cases, so far as a careful inquiry could be made, was a true reinfection. The longest took twenty-two days before complete disappearance of the gonococci; one disappeared from treatment, after rapid elimination of gonococci; in the rest the gonococci had disappeared before the end of the first week; treatment covered two weeks; observation in most occupied three, four or five weeks. Most of these cases had been old patients; some had two or more previous attacks, all of which had been previously treated by myself; two or three had gone through the days of treatment with permanganate alone, argonin and permanganate, and the present method. Their habits have been well known and freely told me, and their custom has been to come at the earliest moment that they may discover a discharge, the intervals being six months, one year, and even three years.

One point of interest: not one of the patients thus observed developed epididymitis. Nor could any accidents which occurred during the course of treatment be attributed to the treatment.

There is one serious objection to this method—the time consumed in a single visit: twenty minutes in private work, sometimes fifteen is the quickest in which it can be performed; it is, therefore, tiring and a strain upon the practitioner and a busy man, interested in other things, is hardly willing to give this time. These results cannot be obtained by the patient himself.

It is a great mistake even to guarantee a patient a cure or to make a definite statement as to how long treatment will last. Each case must be treated on its own merits and the exact strength of solutions or mode of application may be subject to change from day to day. Patients who are doing well often become discouraged or stay away a day or so because they think themselves all right. This naturally tends to prolong the disease and they must be made to understand this, and it is better that they should have a few treatments too many rather than not enough.

I desire here to express appreciation of the assistance rendered me by Drs. Louis Friedman and L. E. Levine of New York, Dr. Henry Koehler of Louisville, and Dr. E. Wood Ruggles of Rochester.

LUPUS ERYTHEMATOSUS IN A TUBERCULOUS SUBJECT
—AUTOPSY REPORT.¹

BY J. A. FORDYCE, M.D.,

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THE patient, a woman aged thirty-nine, was under my care at the City Hospital during the spring of 1898. She comes of a family of drinkers; her mother died of alcoholic meningitis, all her brothers and sisters are addicted to the excessive use of alcohol. For years the patient has drunk to excess, frequently taking as much as a gallon of whisky in four or five days. Lately she has been drinking essence of mustard, peppermint, ginger, etc. She is excessively fat; has only menstruated three times in her life. Has been an epileptic as long as she can recollect. A number of linear scars are present along the sterno-mastoid muscle, the result of an operation some years previously for strumous lymph-nodes. She is deeply jaundiced and the skin about the eyes ecchymotic. Three years ago an eruption of red spots appeared on her cheeks, then on the forehead. The eruption spread until now it assumed the appearance shown in the colored drawing [drawing shown at the meeting], involving both cheeks and nose, and presents the appearance of a typical butterfly lupus erythematosus with four or five isolated spots on the forehead. The color is a deep brownish-red with a violaceous hue. The outer margins of the patches on the cheeks and the center of the spots on the forehead show some degree of atrophy. The eruption is chiefly made up of dilated capillaries, the color perceptibly fading on firm pressure. There is, however, distinct infiltration in the body of the patch which, with the atrophy, makes the condition more than a rosacea. It was difficult to obtain a satisfactory history from the patient, as she was semi-delirious on entering the hospital. Her friends furnished the foregoing account of her life. The delirium which was present when she entered the hospital passed into a condition of coma, in which she died. The autopsy which was made on the day following her death revealed the following condition:

Brain.—The dura mater was bile-stained, the pia mater edematous; arteries in fairly good condition; the ventricles were a little dilated, with an excess of fluid in them. There was a general edema of the brain with the atrophy of the frontal convolutions.

¹ Read before the Twenty-second Annual Meeting of the American Dermatological Association, June, 1898.

Heart.—Pericardium normal. Valves: Tricuspid bile-stained, dilated to admit tips of four fingers. Others normal. Endocardium normal. Walls: Left ventricle had in its wall an irregular hemorrhagic area looking like an infarct. Cavities: Right side dilated. Aorta atheromatous.

Lungs.—Both presented the same lesions. Pleural cavity dry. External surface of lung smooth. No adhesions. Cut surface showed edema in upper lobe; congestion in the lower. Bronchial tubes contained bile-stained froth. No tubercles were found, but the bronchial glands were small and pigmented.

The Liver was one inch above the lower border of the ribs and the gall-bladder was entirely concealed. *Vermiform appendix* was 4 inches long and free. There was no fluid in the abdomen and the *mesenteric glands* were normal. Retroperitoneal glands were normal.

Liver.—Weighed 65 ounces. Was golden-colored and had some fresh hemorrhagic adhesions to diaphragm. It was very firm in consistency, the blood-vessels were normal, the lobules distinct, but the bile capillaries were engorged, and entire liver bile impregnated. The gall-bladder contained 2 drams of clear orange-colored bile. The wall thickened and the common duct pervious.

Pancreas.—Small, reddish-gray and firm, and contained a yellowish area 1 mm. in diameter just below the surface.

Spleen.—Twice the normal size and its capsule adherent to diaphragm by fresh blood-stained adhesions. Purple in color and very soft.

Left Kidney

Weight: $3\frac{1}{2}$ ounces and firm.
Color: Congested and mottled with small tubercular foci.
Capsule: Adherent at tubercular areas.
Cortex: Thickness diminished. Markings plain.
Blood-vessels: Thickened.

Right Kidney.

Weight: $9\frac{1}{2}$ ounces and soft.
Capsule: Adherent. Surface ragged.
Cortex: Increased; markings plain.
Tubercular abscess $2\frac{1}{2}$ inches in diameter, filled with a grumous material and yellowish in color. Many other smaller tubercular foci.

Pelvis.—A few hemorrhagic areas.

Diagnosis.—Cirrhosis followed by renal tuberculosis.

Adrenals.—Cirrhotic.

Bladder.—Mucous membrane pale. Contents, turbid urine. Bladder wall normal.

Uterus.—Was diminished in size one-half; its wall was atrophied; the mucous membrane normal. The cavity contained bile-stained mucus. The tubes were somewhat cystic. The ovaries were cirrhotic, containing firm, yellowish areas.

Autopsy Diagnosis.—Pulmonary and cerebral edema, renal tuberculosis, and hypertrophic hepatic cirrhosis.

The association of lupus erythematosus with active tuberculous lesions in the kidneys, and the scars of healed tuberculosis of the lymph-nodes is of interest in view of the repeated observations which have been made by the French school—Boeck¹ and others—of the coincident occurrence of the skin affection with tuberculosis.

In this case, however, there were so many pathological factors that it is difficult to ascribe to any of them an etiological rôle.

As such cases seldom come to the autopsy-room, I deemed it of interest to report the case as a contribution in line with the views of many of our colleagues.

Histology.—A piece of skin from the margin of the diseased skin was excised after death, fixed in a formalin, and stained in a variety of ways. It shows a marked thinning of the epidermis with complete obliteration of the papillæ due to overdistention of the skin from the excessive fat deposit and serous exudate in the tissues. The capillaries in the subpapillary region are dilated and partially filled with red and white corpuscles. Here and there are foci of mononuclear leucocytes ("plasma" cells. Unna); no polynuclear cells in this or other cases examined.

The capillary vessels in the middle and deeper regions of the derma are in places partially or completely obliterated; in some of them organizing thrombi were met with. In others coagula containing red and white blood-corpuscles, partially disorganized.

Pigment deposits from old hemorrhages were frequent throughout the papillary region as well as in the deeper tissues.

The principal microscopic changes were vascular, with only slight evidences of a chronic inflammatory process. Nowhere was there any indication of a tubercular affection of the skin. The eruption in this case conforms more closely with the telangiectic type of the disease which has been described by Crocker.

The habits of the patient and the absence of menstruation were sufficient to determine the pronounced vascular changes present and had it not been for the atrophy and the circumscribed outlying patches a diagnosis of resacea could readily have been made. It is quite likely

¹"The Exanthemata of Tuberculosis," *Arch. f. Dermat. u. Syph.*, xlii, S. 71, 1898.

that the rosacea was the primary condition, and that the lupus erythematosus was engrafted on the vascular disturbance resulting therefrom.

The frequent association of lupus erythematosus with tubercular foci in the lymph-nodes or in the internal organs, as well as the close clinical resemblance of certain forms in this disease with lupus vulgaris, have convinced many excellent clinicians that something more than a mere coincidence connect the two processes.

Although the histological findings in lupus erythematosus do not point to local infection with the bacilli, we have good reason to assume that in some cases the changes in the blood-vessels and connective-tissue may be due to the irritant action of certain soluble products of the germs.

Dr. E. A. de Schweinitz,¹ the chemist of the Department of Animal Industry in Washington, has experimentally produced necrosis of liver-cells in guinea-pigs with certain crystalline substances which he obtained from pure cultures of tubercle bacilli.

It is not at all unlikely that certain cases of lupus erythematosus may result from the slow absorption of similar products which, in the act of elimination by the cutaneous glands, may set up a chronic inflammatory process, or in the passing through blood-vessels previously damaged by cold or other causes, may determine the changes characteristic of lupus erythematosus.

It is not believed by the writer that all cases at present included under the name of lupus erythematosus have a common cause: in some the etiology is probably a local one, while in others a chemical or other irritant, acting through the blood stream, is probably responsible for the condition met with.

66 Park Avenue.

¹"Some Products of the Tuberculosis Bacillus and the Treatment of Experimental Tuberculosis with Antitoxic Serum." Reprinted from the *Transactions of the Association of American Physicians*, 1897.

ARE MALIGNANT GROWTHS ARISING FROM PIGMENTED MOLES OF A CARCINOMATOUS OR OF A SARCOMATOUS NATURE?—REPORT OF TWO CASES (ONE IN A NEGRO) WITH A STUDY OF THE HISTOGENESIS OF PIGMENTED MOLES.¹

BY T. CASPAR GILCHRIST, M.R.C.S.,

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MALIGNANT melanotic growths arising from pigmented moles have generally been considered to be of a sarcomatous nature. This opinion is based partly upon the histological structure of the growths partly upon their apparent identity with the undoubtedly sarcomatous tumors springing from the choroid coat of the eye and partly upon the belief that the moles themselves are essentially of connective-tissue origin, and that, therefore, cellular tumors developing from them are to be regarded as sarcomatous.

Opposition to these previously accepted views was raised by Unna in 1892, who, in his investigations of the histogenesis of pigmented moles, came to the conclusion that the cells in the corium which make the most characteristic constituents of the moles are derived from the rete layer of the epidermis and not from endothelial or connective-tissue cells. Unna reached this result mainly by the study of moles in early stages of their development in infants, whereas previous observations had related mostly to quiescent, fully developed moles in which, according to Unna, it is usually difficult or impossible to determine the exact source of the large epithelioid cells composing them.

In accordance with the present histogenetic classification of tumors it is evident that if the cells in pigmented moles which give rise to the so-called melanotic sarcomata are in reality of epithelial origin, then these tumors are to be transferred from the group of sarcomata to that of epitheliomata or carcinomata, and this is the position taken by Unna.

Since the publication of Unna's researches upon this subject, divergent opinions have been expressed as to the accuracy of his conclusions. Green and Bauer were unable to confirm Unna's observations

¹ Read before the Twenty-second Annual Meeting of the American Dermatological Association, June, 1898.

whereas Scheuber's results are in harmony with those of Unna. The subject is evidently one needing further investigation.

The study of the two present cases, together with the histological examination of numerous moles, would seem to justify an expression of opinion of this subject.

So far as the records in the literature go but very few cases of this kind have been reported in this country and among them I have been able to find only two instances in negroes, in neither of which was there any microscopical examination.

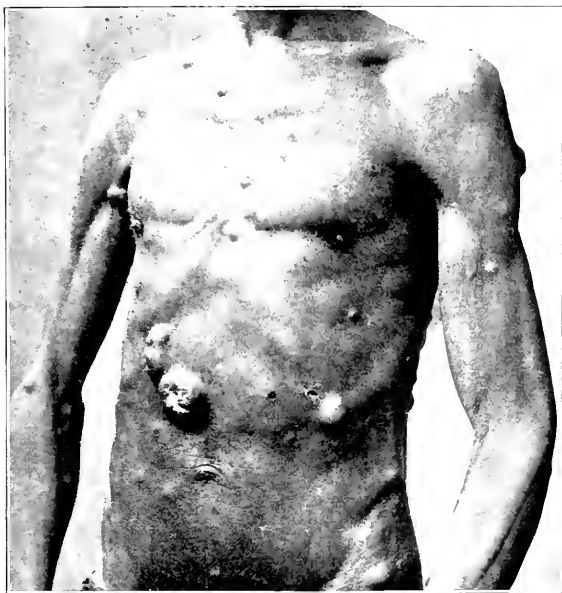
CASE I.—The patient was a full-blooded negro, fifty-eight years old, about 5 feet 6 inches in height and married. Family history negative. With the exception of the ordinary diseases of childhood the patient had always enjoyed exceptionally good health previous to the present disease.

About four years ago, while washing, he noticed a small, very black spot on the sole of the right foot, situated about 2 cm. behind the root of the second toe. But little attention was paid to this spot, as it was unaccompanied by any pain, stiffness or difficulty in using the foot. The patient gave a history of accident to the foot three years previous to the appearance of the lesion but there does not appear to have been any connection between the two, as the injury at that time had been to the dorsum of the foot. The pigmented patch grew very slowly in size; it also began to get harder and to be slightly raised. The patient took it for an ordinary corn and as it began to annoy him on account of its position, he cut it with a razor, with the result that a watery fluid oozed out. The lesion now began to grow much more rapidly and three years ago he consulted Dr. M. D. Brown of this city, who described it (to the writer) as a deeply pigmented patch about the size of a "nickel" (a little less than 2 cm. in diameter), only slightly raised and presenting an appearance of ulceration in the center. After this the growth kept on increasing, but not very rapidly, so that, according to the patient's account, after two years it had reached the size of one of the secondary growths which was found on the abdomen when he came to us and which measured 4 x 4 cm. All this time he had continued at his work as a laborer. The first metastasis was noticed two years after the "corn" first appeared: it was situated on the same leg a little below the knee. Just before the secondary nodule appeared the patient had been operated upon by a local physician, who removed the primary growth, which, however, soon recurred. After the secondary growth (eighteen months ago) appeared the patient was again operated upon by Dr. Cole of this city, who removed both the primary and secondary growths, since which time there has been no recurrence

of these two lesions. Up to this time the patient's general health had been excellent. He first came under notice at the University of Maryland in December, 1897, and his condition was then as follows:

On the *sole of the right foot* there was a linear scar which was situated just posterior to the big toe. The metastases were distributed

FIG. 1.



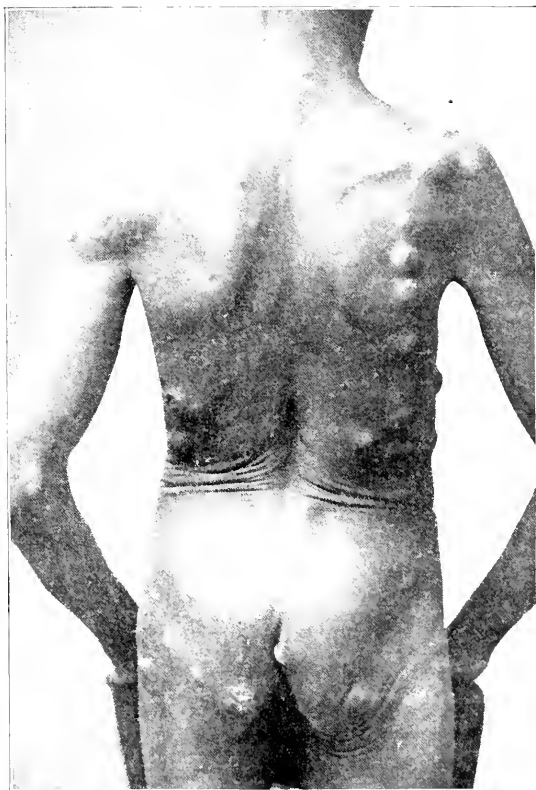
Melanocarcinoma in skin of negro.

on the trunk and extremities, but the head, neck, and mucous membranes of the mouth, nose, and eyes were all normal.

On the *left upper extremity* nodules were present only on the upper arm. One nodule, 3×3 cm., was attached to the skin overlying it; the latter presented a purplish-black, irregular, shiny surface with three small scales. There were two smaller tumors 5×5 mm., both attached to the skin, one above and one below the insertion of the deltoid; a third

of similar size, which was just commencing to involve the skin, was found just above the border of the axilla. The presence of the smallest

FIG. 2.



Melanocarcinoma in skin of negro.

growth was only recognized after feeling the skin carefully; it was about the size of a mustard-seed; it was quite firm, deeply situated, and perfectly movable beneath the skin.

The *right upper extremity* also presented lesions only above the elbow. One nodule, near the external condyle, measured about 1.5 x 1.5 cm.; it was lobulated and was just commencing to be attached to the skin, which was tense and more deeply colored than normal. There were three other growths, varying from a mustard-seed to a pea in size in this region; they presented features similar to those described in speaking of the nodules on the left arm.

On the *chest* was a nodule the size of a mustard-seed, situated just above the left clavicle; the growth was firm, deeply situated, and very movable beneath the skin. A similar nodule was found over the right clavicle, and just below the clavicle another could be felt which was so movable that it could be pushed over the bone. On the anterior surface were scattered fourteen nodules varying in size from that of a mustard-seed to that of a pea. Those of the smallest diameter could not be detected by the eye, but could only be felt. Wherever a growth was slightly larger, a small, apparently papular, elevation of the skin could be noticed.

On the *abdomen*, between the umbilicus and ribs, a little to the right, were two large masses. The lower one measured 4 x 4 cm.; it rose abruptly 1 cm. in height above the normal skin and the center showed an irregular, excavated, rather dry ulcer. The growth was very firm, deeply pigmented, and could be lifted up from the underlying structures. No pus could be squeezed from the ulcer. The upper tumor, which was made up of two nodules which had fused together, measured 4 x 2 cm. It presented an elevation of 1 cm. and its upper portion was broken down whereas the lower had only implicated the skin but was deeply pigmented. Scattered over the abdomen were eight other nodules varying in size from 1 to 2 cm. in diameter and of a character similar to those already described. Photograph, Fig. I., shows most of the nodules scattered over the anterior surface of the trunk and arms.

On the back, as shown in photograph, Fig. II., were scattered twenty-nine nodules of various sizes and in different stages of growth; they were all of a firm consistence. On the right side were six running almost in a vertical line directly downward from the shoulder. There was also a group of five situated toward the left side between the eighth and tenth ribs.

The buttocks showed ten tumors of various sizes; only two of them were beginning to implicate the skin and were deeply pigmented. On each thigh were four nodules of medium and small size. Four were scattered over the surface of the right leg. One small growth was situated over the tarso-metatarsal joint of the big toe on the dorsal surface.

Generally speaking, on palpating the smallest nodules, which could only be found after careful searching, these were always found to be in the deepest portion of the skin; they were freely movable beneath the skin and over the underlying structure. They were very firm and were suggestive of a mustard-seed embedded in the subcutaneous tissue. It was only when the nodules reached a size of about 3 mm. in diameter that there was slight indication to the eye of its presence in the deeper structures, evidenced on the surface by what appeared to be a papule. Before the skin became involved the nodule had grown to quite a large size, from 1.5 to 2 cm. in diameter. The skin overlying the growth did not become pigmented until the latter became attached to it. When ulceration occurred it was a dry ulceration and no pus appeared to be present. No enlarged lymphatic glands were observed in any portion of the body. The patient did not complain of any pain, even when the nodules were handled. He complained of some bladder disorder and had entered the hospital more for this trouble than on account of the secondary nodules. His general condition was poor and he was emaciated. Both eyes were perfectly normal. One of the nodules was cut into for macroscopic examination and the center was found to be deeply pigmented. A diagnosis of melanotic sarcoma was made.

A number of the smaller nodules were afterward excised for histological examination. The patient was put on hypodermic injections of Fowler's solution, commencing with 1 minim a day, the dose being increased each day. He left the hospital of his own accord after three-weeks' treatment. No improvement had taken place. The urine contained melanogen.

The patient was seen at his home occasionally during the eight months previous to his death and during that time hundreds of metastases appeared over the various regions of his body, but what was rather remarkable, no involvement of the lymphatic glands occurred.

One month before death a medium-sized nodule was partly removed after burning the surface and the excised portion was placed in a sterile Petri dish. The tissues were teased thoroughly in sterile bouillon, which was poured into the Petri dish, and the mixture was inserted through a pipette into the external jugular vein of a dog. The animal seemed to thrive and become very vigorous; after two months it was killed. Nothing abnormal could be discovered either in the lungs or neighboring glands, or locally.

From the history of this case there does not appear to be any doubt that this pigmented malignant growth had its origin in the skin of the sole of the right foot, and that it probably resulted from some previous pigmented mole, although the patient says he had never noticed any

present. The physician who first saw the patient was convinced that it was a purely cutaneous lesion, deeply pigmented and slightly ulcerated. It may safely be concluded, therefore, that the lesion began in an area of the skin, which in the negro is less pigmented than the rest of the surface of the body, namely, the sole of the foot. The metastases began to make their appearance only after the growth had been cut by the patient.

Although no portion of the primary growth could be obtained for microscopical examination, a number of the metastatic growths in various stages of development were excised. The smallest nodule, which was just perceptible to the touch and which felt like a small mustard-seed embedded in the subcutaneous structure, was excised and the sections showed the following changes. Fig. 3 represents one of the sections. The epidermis (*E*) and the whole of the corium (*C*) were practically normal. The most striking change was the presence of a metastatic nodule (*M*) 1 mm. in diameter in the lower portion of the subcutaneous tissue (*T*). Besides this nodule and some pathological changes along its upper and lateral margins the subcutaneous area, as well as the whole of the corium and epidermis in the section, showed practically nothing abnormal except an enlargement of the veins (*V*). The metastatic nodule is oval in shape and sharply defined. Along the lower margin there is a tendency to the formation of fibrous tissue but along the upper margin and especially where it is in contact with the fat-cells (*F*) there are large numbers of round mononuclear cells, many of which are plasma-cells. The nodule is made up almost entirely of epithelioid cells; the majority are mononuclear, although quite a number are multinucleated. The cells vary very much in size and shape according to the pressure exerted upon them. The large multinucleated cells are situated nearer the center of the nodule. The nuclei also vary very much in size and shape, some being very large; a number of nuclear figures can be observed. Many nuclei present vacuoles of various sizes; others present large numbers of deeply staining, variously sized granules. Toward the center of the growth as well as at the periphery are many young epithelioid cells. Between the epithelioid cells throughout the whole of the metastatic growth are scattered comparatively few lymphoid cells. Where the tumor encroaches on the fat-cells single epithelioid cells were found advancing between the fat-cells and accompanied by numerous lymphoid cells as well as some plasma cells. Fine connective tissue and connective-tissue cells run between groups of the epithelioid cells. The fat-cells which have been replaced by the growth disappear. In one section at the margin could be seen one large multinucleated epithelioid

cell which had advanced among the fat-cells; this epithelioid cell was thickly surrounded by lymphoid cells and a few polynuclear leucocytes. Pigment masses, pigment cells, and pigment granules are already present in the metastasis, chiefly in the lower and central portion of the nodules. At this stage the pigment is not present in large amount. No blood-vessels are to be seen within the nodules.

Another metastatic growth excised was a little larger than the previous one, measuring a little over 2 mm. in diameter. The section showed that the increase in size had taken place chiefly in an upward and lateral direction. The amount of pigment was increased and the collection of lymphoid cells at the upper and lateral margin was denser. The next two metastases which were removed measured respectively 3 and 4 mm. in their longest diameter. The pigment masses in the form of cells have now begun to assume large proportions and appeared to enter the nodule from below. The nodule was still increasing in size along the upper and lateral margin almost exclusively, *i.e.*, in the direction of least resistance. The collection of lymphoid cells, seen at the junction of the fat lobule in the smaller metastases, was not nearly so noticeable in these sections.

The larger nodules did not present anything strikingly different from those already described. The increase in size had always been rapid in the upward direction until the skin was reached. The growth had become more and more pigmented as it increased in size and when the nodule reached the epidermis, very pronounced masses of pigment cells, many of which had an epithelioid character, were situated between the nodule and the epidermis.

The character of the epithelioid cells, of the nuclei, and the arrangement of the cells (alveolar) is practically the same up to the time the nodule reaches its largest size. The adjoining tissues are disturbed only mechanically and even when the nodule begins to implicate the epidermis there are practically no collections of lymph or plasma cells such are seen in the commencing nodules. There are also but few lymphoid cells scattered throughout the nodule itself, except in the center, where collections of them are found. Many forms of degenerating cells are seen.

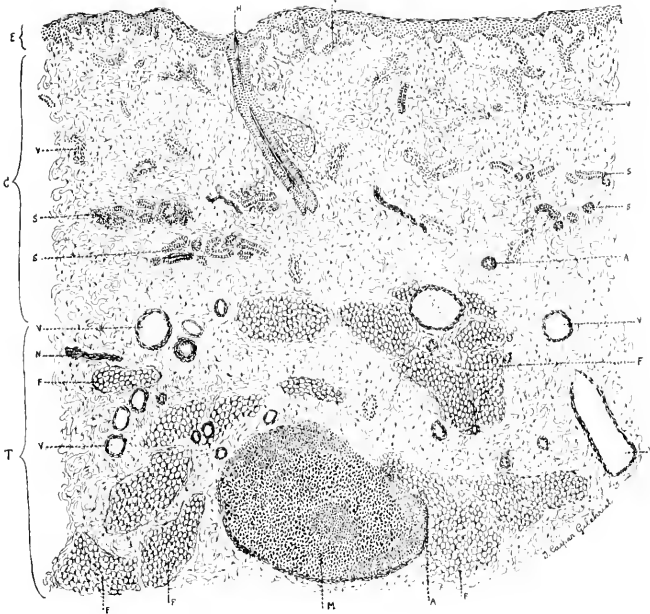
The epidermis gives way as the metastatic growth goes on increasing in size, so that finally a dry ulcer is formed.

CASE II.—I am particularly indebted to Dr. Young of the Johns Hopkins Hospital for the privilege of recording this case. It was of special interest because the lesion was excised in an early stage of its growth and because it afforded the best opportunity for demonstrating

that this malignant overgrowth originating from a pigmented mole was a melanotic carcinoma, and not a sarcoma.

The patient, a physician, gave the following history: About seven years ago there gradually appeared on the left cheek, just below the eye and near the nose, a pigmented mole which was very small at first; it increased very slowly in size for five years, at which time it had attained

Fig 3



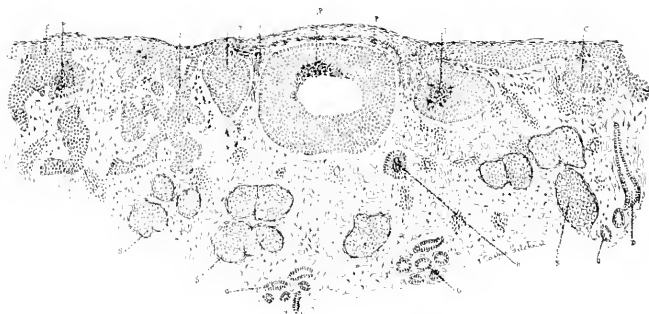
Section of the earliest perceptible cutaneous metastasis in Case 1. of melano-carcinoma. *M*, nodule situated in the subcutaneous tissue; *T*, *A*, the collection of lymphoid and plasma-cells aggregated at the periphery of the nodule; *E*, the epidermis; *C*, the corium, and *T*, the subcutaneous tissue; *H*, a hair-follicle; *V*, the blood-vessels; *S*, the sweat-glands; *A*, an artery; *F*, the fat lobules; *N*, a nerve.

a diameter of about two mm. No apparent pigmentation or mole had been noticed previously to seven years ago. The mole was always firm and did not present any signs of irritation or inflammation.

Six months previous to the removal of the mole by operation (*i.e.*, eighteen months ago) it was accidentally scratched, after which time it began to increase in size. A small scab formed over it. The writer then saw it and was asked his opinion concerning the lesion. A diagnosis of epithelioma was made. Thorough excision was done by Dr. Halsted twelve months ago. The patient is twenty-seven years old, about 5 feet 9 inches in height, and of a healthy, wiry build.

The histological features are of great interest since the sections prepared by Dr. Young showed very beautifully all stages of commencing malignant downgrowth of the epithelium of the epidermis (Fig. 4, *C*). The excessive increase in pigment granules and pigment masses (*P.*, Fig. 4) apparently keep pace with the increase in volume of the epi-

FIG. 4



Section of a melanocarcinoma beginning in a mole (Case II.). *C*, the malignant downgrowth of epithelium from the epidermis; *P*, the pigment granules and masses; *S*, sebaceous gland; *D*, sweat-duct; *G*, sweat-glands; *H*, oblique section of a hair.

thelium. The increase in pigment of the carcinoma has probably been due to a malignant progress of the same process which has produced the increased pigment present in the epidermis of the mole itself; in other words, the greater portion of the pigment of the carcinoma has not been derived from the pigment in the corium of the mole. Some slight remains of the unaffected structure of the mole can be seen between the epidermal downgrowths; clumps of pigment belonging to the mole structure are also found in the corium. In this case there is not the slightest doubt that the malignant growth commencing in a mole is of epidermal origin and is, therefore, a melanotic carcinoma.

In view of the fact that the primary lesion in the first case (in the negro) may have originated in a mole and that in the second (Dr. Young's case) we had an undoubted carcinoma commencing in a pigmented mole, it was deemed of interest to undertake the study of the histology of pigmented moles with especial regard to their origin.

Four pigmented moles from adults and one from a child twenty-one months old were excised from living persons and examined.

Virchow, v. Recklinhausen, Demiéville, Post, Green, Bauer, Ribbert, and others have expressed the opinion that moles are of connective-tissue or endothelial origin, whereas, as has been said before, Unna advanced the view that they are derived from the epidermis. Unna came to his conclusions as the result of examining moles from infants and children, and was able to demonstrate the connection between the cells which make up the mole and the epidermis covering it. He holds that the epidermal downgrowths become gradually "snared off" so that in the adult no connection is seen between the structure of the mole and the epithelium. Scheuber has just lately confirmed Unna's observations. These two authors are, therefore, of the opinion that malignant pigmented growths arising from moles are not melanosarcomata but melanocarcinomata.

Fordyce¹ says that many tumors which were formerly considered to be sarcomata were undoubtedly examples of pigmented carcinoma, but agrees that it is impossible to say clinically whether a given pigmented growth is a cancer or a sarcoma.

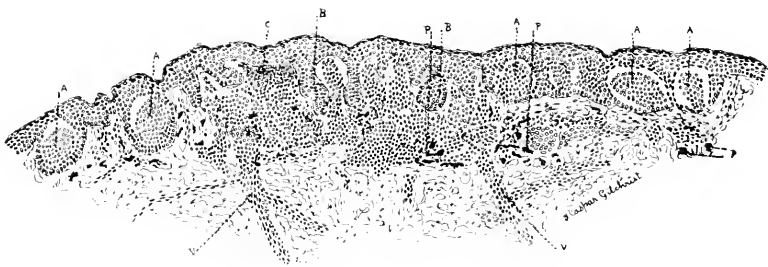
HISTOLOGY OF MOLES.

A small, deeply pigmented mole was removed from the abdomen of a child twenty-one months old. The section presented the following features (Fig. 5 represents one of the sections): The horny layer consists of only two or three flattened strands; the stratum granulosum is represented by one layer of cells and the rete by three or four layers of cells over the papillae. Some very interesting features are seen in the epidermis. There are what appear at first sight to be a number of fairly large vesicular spaces (*L.L.* Fig. 5, *L.C.* Fig. 7), situated in the epidermis and containing collections of epithelial cells, with numerous pigment granules between and within the cells. As many as seven collections were seen in one section. In many sections these collections of cells are connected below with a continuation

¹"American Textbook of Genito-Urinary Diseases, Syphilis, and Diseases of the Skin," p. 1044.

of the rete layer of the epidermis as a single layer of cells (*B. Fig. 7*); in other places these masses have become detached from the epidermis at the lower portion of the lateral aspects (*C. D. Fig. 7*, and *A. Fig. 6*) and retain their situation in the upper portion of the corium with a slight space between them and the epidermis above and laterally. In other places there can be noticed deeper prolongations of the interpapillary portion of the epidermis (*B.B. Fig. 5*, *B. Fig. 6*, and *D. Fig. 7*); the lower half is being "snared" off (as Unna expresses it) or constricted off. In other sections one can see this constriction still more marked (*Fig. 6 B*). The lower portions, which are constricted off, are also deeply pigmented (*C.D. Fig. 6*). When adjoining collections of cells, as represented in *Fig. 7* become detached,

Fig. 5.



Section of a pigmented mole excised from a child 21 months old. *A*, shows the collection of epithelial cells being detached from the epidermis; *B*, the constricting off of portions of epidermis; *C*, confluent masses of epithelial cells; *P*, pigment; *V*, blood-vessels.

and the interpapillary portion becomes constricted off (*D. Fig. 7*), the two collections of cells in the further process become joined together so that large confluent masses of epithelium occupy the upper portion of the corium (*C. Fig. 5*).

Since the collection of cells just referred to become detached from the epidermis and the snaring-off process is carried on as well, it is thus seen that *in this mole* by far the largest portion of the structure of the mole is derived from the epidermis. The deeper portions of the mole structure consist simply of the lower portion of the same masses of epithelial cells.

In one section a collection of cells was seen enclosed in the wall of a hair-follicle and one in the lower half of the epidermal portion of a sweat-duct. Normal skin was included in the section so that a comparison could be made. The epidermis over the mole was not so deeply pigmented as the corium except in the places where collections of epidermal cells were being detached.

Comparatively large masses of pigment were distributed throughout the structure of the mole and the epidermis covering it. Some of the pigment masses in the corium are equal to ten times the size of the adjoining epithelial cells (Fig. 5, *P*). In the deepest portion of the corium there are collections of cells round the vessels which are of a different nature to those which make up the structure of the mole (*V.V.* Fig. 5).

It is thus seen in the section from this mole that one can follow the

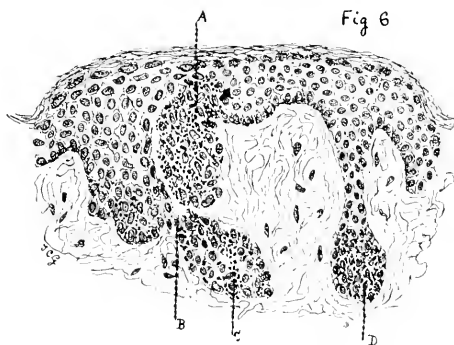


Fig 6. From the same mole, showing the constricting off of portions of epidermis, *B*, *D*, and detachment of masses of cells, *A*, *C*.

stages of the detachment and constricting off of masses or collections of epithelial cells from the epidermis and that these masses are deeply pigmented and go to form the structure of the mole itself. The mole is, therefore, of epidermal and not of dermal origin.

Sections were made from numerous other pigmented moles taken from adults and one could occasionally still see traces of the snaring-off process.

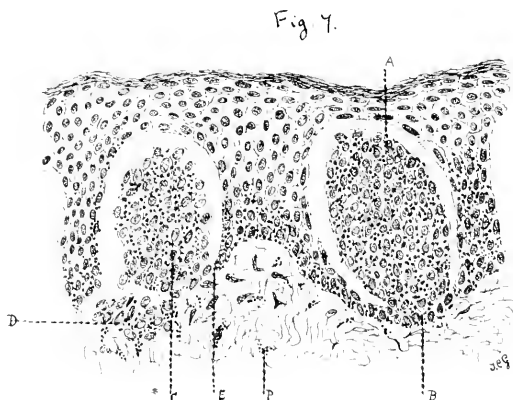
SUMMARY.

The two cases described were instances of malignant melanotic growth commencing in the skin. The first case was followed by

numerous metastases, especially in the skin, but the superficial lymphatic glands were unaffected even up to the time of death. The cutaneous metastases were first deposited in the subcutaneous fat (Fig. 3, *M*).

The second case began in a pigmented mole on the face of a young physician and was excised in an early stage of its growth. The microscopical appearance left no doubt as to the origin of the malignant overgrowth in the epidermis—it was unquestionably a melano-carcinoma (Fig 4).

A small pigmented mole was excised from the skin of the abdomen of a child twenty-one months old and the sections demonstrated the



From the same mole, showing collections of epidermal cells separating from the epidermis. Collection *A* is still attached below *B* by one layer of cells. Collection *C* is almost detached below and the portion *D* is quite detached from the epidermis.

manner in which the collections of epithelioid cells which go to make up the structure of the mole were originally derived from the epidermis, namely, by detachment of collections of epithelial cells and by the constricting off of the lower portions of the interpapillary processes (Figs. 5, 6, 7).

Pathologists had, one might say, universally accepted Virchow's views that the cells of which the mole chiefly consisted were of connective tissue or endothelial origin until Unna, after following out the histogenesis of moles, concluded that these epithelioid cells were of epidermal origin. The present investigations confirm Unna's views.

Since the epithelioid cells which make up the stricture of the mole are of epidermal origin any malignant growth springing from these cells should be regarded as of a carcinomatous and not sarcomatous nature. Our second case supports this view.

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A UNIQUE CASE OF CONGENITAL MULTIPLE NÆVUS
PIGMENTOSUS.

BY BURNSIDE FOSTER, M.D.,

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of Minnesota; Surgeon to the Skin and Venereal Department of the St.Paul City and County Hospital; Dermatologist to St. Joseph's,
St. Luke's, and Bethesda Hospitals, etc.

THE history of this remarkable case may be told in a few words. N. G., aged twenty-one, born in Sweden, family history negative. Strong, well-developed young man, apparently healthy in all respects. The appearances shown in the photograph existed at birth, and have not altered since, except that the large growth on the back has spread slowly during the last few years. There is a slight secretion from the deeper fissures of the large growth and an offensive odor. With the exception of the large growth the moles are nearly all smooth and flat with, here and there, notably on the shoulders and right buttock, a growth of hair. The question of malignancy of this growth must be determined by the future clinical history. The accompanying photograph shows so well the appearances that no further description seems necessary.

Histology.—The sections submitted for examination were taken from the large growth between the shoulders. They were stained with hematoxylin alone.

Unna ("Histopathology," p. 1129) has made a thorough investigation of these growths, so thorough, in fact, that it remains only for later investigators to confirm or disprove his findings on minor points. The tumor in question belongs to his class of "soft moles" which are carcinomata, and not endotheliomata, as claimed by Von Recklinghausen and are developed, according to Cohnheim's theory, from epithelial cell rests, detached from the epidermis in foetal or early life. In many places in these sections connection can be traced between the cell masses and the covering epidermis, there being, apparently, no basement membrane.

The epithelium is not, as a rule, greatly thickened, although there is some increase in all its layers, but the rete pegs are enormously prolonged and form an anastomosing network. The basal layer is deeply pigmented in certain areas, not uniformly. In the meshes of the network and in the papillary body generally are seen the rounded, snared-off masses of cells. Their borders are clearly demarcated, generally by

connective-tissue. The cells show oval, vesicular, deeply staining nuclei, their contours being made out with great difficulty. Further down

FIG. 1.



in the cutis are seen columns of epithelial cells, oftenest horizontal, between the connective-tissue bundles. The cells are closely packed, their nuclei are smaller, more elongated and less vesicular. More deep-

ly, but still in the cutis, the cells are arranged in loose masses, more widely separated from each other, their outlines more clear and the nuclei larger than in any other situation. The appearances here strongly suggest a malignant carcinoma except that there is no mitosis. Pigment is irregularly scattered through the cell masses and cords lying within and without the tumor elements. The appearance in the former case is often that of a nucleated clump of pigment granules. Vacuolation of the nucleus is frequently apparent both in the new growth and epidermis.

In the cutis the lymph-spaces are enormously dilated but there is no proliferation of the lining endothelium. There is considerable proliferation of connective-tissue cells. Careful search failed to show any trace of coil-glands or ducts: here and there, however, attached by solid cords to the surface, were groups having the structure of sebaceous glands, evidently tumor cells pursuing their physiological course. In this tumor there is both epithelioma and acanthosis, *i.e.*, epithelial proliferation with and without fibrillation, the latter, of course, occurring in the epidermic meshwork.

JAS. C. JOHNSTON.

A CASE OF HERPES AFTER LARGE DOSES OF ARSENIC, WITH SOME REMARKS ON THE ETIOLOGY.

BY CHARLES O'DONOVAN, A.M., M.D.,
Baltimore, Md.

ON August 5, 1898, A. M., white, æt. 16 years, of American birth and Irish descent, a growing girl neither well-developed nor strong, and of a distinctly neurotic type, was ordered ten drops of Fowler's solution of arsenic as a tonic, to be taken three times each day. I learned afterward that she was not careful about measuring the doses of medicine and took frequently much larger quantities than had been ordered. She was to report in a week, but having an opportunity to visit friends in the country she left town taking her medicine with her. On August 25th I had a letter from her, in which she described herself as immensely swollen about the face, with eyelids so puffed that she could hardly see. I sent word to her to stop the arsenic at once, and report to me. Five days later she returned to town in the most deplorable condition, having suffered excruciating agony for about three days, with no remission either night

or day. A glance showed the cause of the pain, as her left arm and hand were covered with patches of herpetic blisters. The pain was most intense in the left shoulder and breast, and extended down the outer side and back of the left arm to the tips of her fingers. In no other portion of her body had she any pain. Typical patches of zoster were scattered along the left forearm on the radial side in large numbers, and were developing in the palm of the hand and on the fingers, very accurately outlining in the hand the distribution of the median nerve in the palm and of the radial nerve on the back. There were also some few vesicles scattered about the anterior surface of the arm, and quite a number on the left side of the chest, between the axilla and the breast, on the surface supplied by the anterior thoracic nerve. The crop of vesicles was just coming out fully, the skin being intensely inflamed and her agony almost unbearable. She complained most of her hand and fingers, and of the space between the axilla and breast. Her only treatment was the free use of the thermo-cautery along the course of the median nerve and over its points of distribution, especially where the vesicles were largest and most abundant; also, on the left side of her neck and near the top of the scapula. Her breast was not cauterized. The sores that followed the burning were dressed with vaselin. Within a few hours after the pain of the burning had passed off there was a distinct improvement in the herpetic condition. No new vesicles appeared, and those spots that were just becoming herpetic were aborted. The pain in the hand and arm was much less, though that in the breast continued to be very severe, abating slowly, and it was not until after several weeks that it finally disappeared. Two days after the first burning she reported that her hand and arm had improved very materially, the worst pain in the extremity being between the index and middle finger and on both sides of the middle fingers, where several groups of vesicles had coalesced, causing two or three large blister-like sacs, from each of which pain seemed to radiate. These sacs were destroyed with the cautery at dull red heat and a few touches were made over the course of the median nerve in the forearm. No further cauterization was required, as the vesicles everywhere dried promptly and the pain rapidly decreased, except about the breast. On November 1, 1898, she reported that she was perfectly well; but she still carried traces of the herpes in little pigmented spots where the eruption had been; also, she showed a new nail on the index finger, from which the old nail had nearly separated, and a distinct indentation of the nail of the next finger, although it had not been entirely destroyed.

Behind the injured portion of each nail the newly formed nail was growing nicely and without further disfigurement. Beyond the ap-

plication of vaselin to the burns she had no further local treatment. Her internal treatment consisted only of laxatives to relieve constipation and a solution of morphia and chloral to be used at night, as the pain had made sleep impossible for the three nights before she returned to town. This solution was used satisfactorily for two or three nights, and was not needed afterward. Some pain persisted until about November 10th, and in damp weather she could notice a return of sensitiveness until about December 15th, by which time all signs of pigmentation or blister spots had faded away, although slight scars from the cautery could still be distinguished.

The interesting features in the reported case naturally group themselves under three heads, *viz.*: the fact that the violent attack of herpes followed so directly upon the continued careless use of arsenic; that the eruption accurately outlined the distribution of nerves having a common origin, and that the treatment by actual cautery was singularly successful in checking the disease. All of which considerations naturally lead up to the question, what is the prime etiological factor in the production of this mysterious eruption? That it is of nervous origin may be accepted as proven, but is it a disease of the nerves primarily or, as has been claimed, is it an invasion of the nerve structures by micro-organisms exhibiting a peculiar selective faculty for certain individual nerve roots or branches while the rest of the nervous organism remains untouched? This hypothesis seems hardly tenable, although cases are occasionally reported that appear to substantiate the theory of an infectious agency as a causative factor; and Kaposi and others have likened the occurrence of herpes in certain seasons of the year to the greater frequency of pneumonia under similar conditions. In spite of the seductiveness of the theory that would make zoster a specific disease, we have as yet no facts of sufficient clearness to justify us in accepting it as more than possible. The argument against it that is so often used, that but one nerve-trunk or ganglion out of so many in the body should be found affected, does not weigh very much, for why should zoster, arising from any cause, be so limited? The case just reported bears very strongly upon this very argument. Why should arsenic produce such a condition only in the nerves of the arm most closely allied in their origin and nowhere else in the body, not even in similar nerves on the opposite side? Here we have a poison generally administered with its effect produced in a limited area of the body. This leads one to suspect that there must exist just in that nerve, whether in its ganglion or at its distribution, some condition that renders it peculiarly susceptible to the poison, be it arsenic or toxin produced by micro-organisms. Exactly what this condition is has not

been made out. That degenerative changes occur in the nerves is well known, and they have frequently been described as affecting the ganglia or the nerve endings, although the vast majority of investigators have been satisfied with the explanation derived from study of the degenerative ganglia alone. At present the drift of opinion, probably due to more precise methods of staining the terminal branches of the nerves, seems inclining toward the theory that the degeneration originates rather at the end of the nerves than in the ganglia (*vide* Leloir, "Twentieth Century Practice," vol. v, p. 838). Some old, long-forgotten injury to the part may have produced a loss of resistance in the nerves of that part, and so, under favorable circumstances give rise to the degeneration that accompanies zoster. I recall a case of severe zoster that occurred in a man about fifty-five years old, and affected only his left leg, in which he was lame from having the foot crushed in an accident more than thirty years before. It may have been only a coincidence, but it is worthy of note as bearing upon the matter under discussion. The prompt and efficient relief obtained from the use of the thermo-cautery appears to me to offer strong testimony in favor of the seat of the disease lying chiefly, or at least primarily, in the peripheral nerve terminations. I cannot conceive of any such effect following so promptly if degeneration of the ganglia had already taken place, while it might be expected quite reasonably if the changes were in the skin endings of the nerves. An analogous case is to be found in the relief obtained in a similar manner in cases of pleurisy with much pain. In my case the greatest relief was gained in the parts that were most freely cauterized, and the pain persisted for the longest time in the pectoral muscles and about the breast, where the cautery was not used. Had the effect of the counter-irritation been exerted through the ganglia, one would naturally expect a general relief, rather than relief just at the localities where the cautery had been applied.

Editorial Notes.

INTERNATIONAL CONGRESS OF DERMATOLOGY.—The Fourth International Congress of Dermatology and Syphilography will be held in Paris from August 2 to 9, 1900. The meetings will take place in the Hôpital St. Louis. Notice of communications should be sent to the general secretary, Dr. Georges Thibierge, 7, Rue de Surène, before June 1, 1899. Members of the congress may speak in any language which is familiar to them, but they are requested to use by preference German, English, or French. By agreement with the organizing committee of the Thirteenth International Medical Congress, to be held at the same time, the Section of Dermatology of the Congress will be combined with the Congress of Dermatology; consequently members of the latter will be considered as members of the Medical Congress without the necessity of formally enrolling themselves as members thereof. The following are the questions proposed for discussion:

Dermatology: (1) "The Parasitic Origin of Eczema"; (2) "Tuberculides"; (3) "Forms of Alopecia Areata"; (4) "Forms of Leucoplakia."

Syphilis and Venereal Diseases: (1) "Syphilis and Associated Infection"; (2) The Descent of Hereditary Syphilitics"; (3) "Causes of Generalized Infections in Gonorrhea."

AMERICAN DERMATOLOGICAL ASSOCIATION.—The subject selected for general discussion at the meeting in Philadelphia, June, 1899, is "The Rôle of Pus Organisms in the Production of Cutaneous Disease."

Book Review.

The American Year-Book of Medicine and Surgery. 1899. Edited by GEO. M. GOULD, M.D. Philadelphia. W. B. Saunders.

These epitomes of medicine, as we have had occasion to point out previously, are genuinely serviceable to the profession. It is impossible for a man who has anything else to do, to keep in touch with the good work in every branch of medicine, but time can be spared for the perusal of these somewhat ponderous tomes and should be bestowed upon them. They are kept as close to the advance as the exigencies of book-making permit. The style of the Year-Books is uniform, the typographical appearance is excellent, and there is noticeable improvement in the illustrations.

As regards the special departments to which this Journal is devoted, the same criticisms must be made as upon last year's volume. There is an undue prominence given to the literature of the English-speaking peoples although there is an apparent effort to improve in this respect. Either the collaborators have not access to the better class of foreign periodicals or their linguistic attainments are limited. They have endeavored to supply these deficiencies from abstracts in various papers and, we regret to state, do not credit the source of their inspira-

tion, giving only the original reference. This applies to other departments as well to those devoted to skin and genito-urinary diseases. The fault may be a small one but it may be easily remedied as is done in these pages by giving the name of the Journal, originally abstracting, at the foot. Again it must be said that the departments of syphilography and genito-urinary disease have an undeniable right to a separate place. It is inconvenient and a waste of time, to have to look for a bit of information tucked away anywhere in 1032 pages even with the aid of one of the best indexes we have ever seen.

Society Transactions.

FRENCH ASSOCIATION OF GENITO-URINARY SURGEONS

THIRD ANNUAL MEETING, OCTOBER, 1898.

(*Annales des mal. des org. génito-urin.*, pp. 1159 and 1281.)

Infections of the Bladder.—DRS. ALBARKAN, HALLÉ AND LEGRAIN.

The authors trace the history of the development of the bacteriology of infections of the bladder up to its present status.

In the chapter on the agents producing cystitis they classify the micro-organisms as follows: *A*, microbes frequently present: (1) bacterium coli; (2) staphylococci pyogenes; (3) proteus of Hauser; (4) streptococci pyogenes; (5) gonococcus of Neisser. *B*, microbes infrequently found: (1) bacillus of typhoid; (2) diplococcus of Fraenkel; (3) diplobacillus of Friedlander. *C*, microbes which are exceptional: (1) bacilli and (2) micrococci described by a few authors. Attention was called to the fact that the tubercle bacillus had been omitted from this classification.

Chapter III. is devoted to the source and mode of access to the bladder of the infective agents.

The micro-organisms reach the bladder by: (1) direct invasion, through the normal orifices, urethra, ureters, or by abnormal solution of continuity; (2) indirect invasion, through the circulation, blood-vessels, or lymphatics.

A, direct invasion: (1) *through the urethra*: (a) from microbes in the air. These can be almost entirely excluded through asepsis and sterilization. (b) from microbes in the normal urethra. Microbes in the normal urethra vary in different individuals and at different times. May we then conceive of a spontaneous infection by simple ascension towards the bladder of germs in the normal urethra? This is doubtful, here, as well as for microbes of the air some pathological condition is necessary.

(c) Microbes in a urethra which is in a pathological state. The instances of this condition are numerous, both through instrumentation and spontaneously, infection may reach the bladder.

(2) *By the ureters*: by direct extension along the inflamed ureter, or through the urine coming from a kidney more or less diseased. Whether micro-organisms can pass from the blood through a healthy kidney and reach the bladder is a controversial point. Some believe that they may, others think that an elimina-

tion of bacteria by the urine necessitates some morbid alteration of the kidney, either profound as a nephritis, or light and ephemeral even to the point of being inappreciable to the eye or the microscope.

(3) *By abnormal solutions of continuity of the vesical walls:* Where vesicocutaneous fistulae exist, a patent urachus, extrophy of the bladder, traumatic or surgical wounds. Under this heading are placed pockets of purulent material containing micro-organisms near the bladder, which may rupture into it. Perivesical inflammations in either sex, pyosalpinx, etc., in the female.

(B) *Invasion by the Indirect Route, Vascular or Embolic Auto-infection:*

We may admit that germs may be carried to the bladder by the capillary vessels, as in the case of every other organ, and may distinguish two forms, auto-infection from a general cause, or a local cause.

Have we then proof that micro-organisms circulating in the blood-vessels in the course of a general infectious malady may become localized in the capillaries of the bladder wall by an embolic process? In tuberculous infection this seems to be possible. All authors admit this. Superficial tuberculous granulations are found in the mucosa beginning beneath epithelium which is intact, but the authors ask, is this a sufficient reason for rejecting the possibility that the bacillus may penetrate the epithelium? As for ordinary infection, though theoretically the embolic process in the bladder wall is possible, no facts have been adduced to prove it.

Besides infection by way of the general circulation, under this head we may class auto-infection from a neighboring local focus, as septic perivesicular foci, or foci at a distance, as uterine and peri-uterine infections.

Chapter IV.—*Effects and Varieties of Vesical Infection:*

(a) *Infection without effect, or aborted:*

Aseptic catheterization may convey micro-organisms into the bladder from the normal or pathological urethra. Check to infection may be attributed to two causes, quality of the infectious agent, quality of the soil, each essentially variable. Even if pathogenic germs be introduced, the healthy bladder may rid itself of them before they have time to develop.

(b) *Infection of the contents of the bladder, bacteriuria:*

Thus the microbe may become implanted in the urine of the bladder, and multiply there. Its first effect is an alteration of the urine without any alteration in the bladder wall.

(c) *Infection of parietal lesions, cystitis.*

When, under the action of pathogenic micro-organisms, the vesical wall reacts and presents the cellular and vascular changes which characterize inflammation, then vesical infection is complete.

Exceptionally, the micro-organisms carried in the capillaries by the mechanism of embolism, determine localized lesions to which eventually the infection of the urine and the entire mucous membrane succeeds. In the immense majority of cases, however, the inverse prevails. The micro-organisms reach the bladder by its orifices, are cultivated in the urine, then the mucosa reacts, is invaded in its turn by the pathogenic germs, the bladder becomes inflamed. Sometimes these two processes are separated by an appreciable interval, and the bacteriuria precedes the cystitis, at other times they are almost simultaneous.

The process may be superficial or epithelial, purulent, or it may be interstitial, phlegmonous, etc.

The factors which go to produce the various results of cystitis are discussed

as virulence of the infecting agent, condition of partial or complete retention, traumatism from instrumentation, agents which determine congestion, etc.

The authors conclude with a few general considerations on the diagnosis, prognosis, and treatment.

Contagiousness of Vesical Infections through Veneral Contact.—

DR. J. JANET: This is a rare condition of which two cases are cited. The first was a woman having for a long time a polymicrobial vesicular infection, the urethra appeared uninfected. The urine contained coli bacilli and a growth of small bacilli diplococci which held the Gram stain. This woman infected two men, each developing a urethritis containing a pure culture of the small bacillus diplococcus.

The second was a man who had an old vesical infection containing cocci (?) the urethra was healthy except for a slight narrowing. Eight days after marriage the wife was attacked with a vesical infection similar to that of the husband.

DR. NOGUÈS reported a similar infection of husband and wife, cystitis in each, the causative factor being a diplococcus, smaller than the gonococcus though similar in form, but holding the Gram stain.

The Anaerobia in Urinary Infections.—DRS. ALBARRAN AND COLLETT.

Utilizing the methods of Veillon and Zuber, the authors made a study of these microbes in the urinary infections in three cases. The first case was a pyonephrosis with fetid pus with tendency to gangrene, accompanied by general infection and death. In the pus of the pyonephrosis obtained by nephrostomy, besides coli bacilli and a few streptococci, was found in abundance a streptococobacillus, strictly an anaerobion which seemed to correspond with the fetid quality of the pus and the gangrenous phenomena observed.

The second case had primary tuberculosis of the kidney, operation. In the parenchyma was an abscess which did not communicate with the pelvis, the pus of which contained a purely anaerobic bacillus without contamination of any other micro-organism.

The third case had a secondary neoplasm of the bladder, and a very fetid urine. In this was found an anaerobic coccus, associated with the coli bacillus and a streptococcus.

A Note upon a Case of Bacteriuria, and upon the Resistance of the Bladder to Infection.—DR. ESCAT

The author reported a case noting: (1) the dis-proportion between the number of micro-organisms and the slight degree of symptoms; (2) the patient had a chronic simple posterior urethritis and hydrocele with chronic inflammation of the tunica vaginalis, but had never had an acute epididymitis; (3) the tolerance of the bladder to a large amount of fluid.

DR. HOGGE reported cases of bacteriuria.

Diarrhea and Urinary Infection.—DR. CARLIER reported two cases of grave urinary infection occurring in the course of a diarrhea.

Vesical Infection and Retention.—DR. DESNOS.

Infection produced in a bladder where retention has existed is a common observation. The author has observed the reverse, *i. e.*, patients who have long

had vesical infection gradually developed retention, a condition which may develop gradually and insidiously.

DR. LOUMEAU read a paper on the treatment of vesical infection.

Catheter a demeure in Vesical Infection.—DR. GENOUILLE presented eighteen temperature charts of patients in the service of Professor Guyon. These were charts of patients with bladder infection and fever showing rapid fall of temperature after the placing of the catheter *à demeure*, often within twenty-four hours, rarely later than four days. Where the catheter was badly placed or too quickly withdrawn the fever reappeared, while replacing of the catheter was accompanied again by a fall of temperature. This treatment sufficed for a majority of the patients, where it failed cystotomy might be indicated.

Comparative Value of the Various Antiseptics in Treatment of Vesical Infection.—DR. HAMONIC.

Much obscurity still reigns, in spite of the progress in bacteriology, upon this question. It is easy in the laboratory to isolate the germs and measure upon them the power of each anti-septic. Passing to the clinic, a new element enters the problem; the soil of the vesical culture which may suffer on account of the antiseptic substances from reactional irritation prejudicial to the patient. We know to-day how great is the influence of traumatism and irritation upon the determination of vesical infection. It is better to let the germs exhaust their virulence upon the vesical mucous membrane, than to seek to destroy them by too energetic application of antiseptic substances.

The clinical difficulty consists in making the balance between the microbicidal action and the irritant action of the antiseptic.

In bacteriuria, the bladder wall being practically intact admits of energetic anti-sepsis. When the bladder wall is involved, it is more prudent to avoid injury to the bladder wall than be too energetic against the germs. If the inflammation is violent it is better to abstain from all local interference.

The antiseptics may be internal, balsams, salols, etc. The local antiseptics may be applied by instillation, lavage, and finally cystotomy may be indicated. Lavage acts on a larger surface but must be applied in more feeble dosage than instillations. When the bladder lesions are deep, the author prefers cystotomy. According to him, the permanganate acts well upon the coli bacilli, the sublimate and biniodide are better for staphylococci and streptococci, sulphate of copper against gonococci, formal succeeds against all these micro-organisms. Chloride of zinc exercises a quasi-specific action upon tuberculous infection.

A Variety of Traumatic Rupture of the Spongy Urethra.—DR. ESCAT reported a case caused by violence to the erect penis in a young man.

Rupture of the Pelvic Urethra.—DR. J. BOECKE

Rupture of the pelvic urethra, without concomitant fracture of the pelvic bone, is rare. Early diagnosis is difficult, urination and catheterization being possible the first few days. It may be thought to be extra-peritoneal rupture of the bladder. The uncertain diagnosis imposes expectation. Intervention upon the first appearance of accidents. These are fatal and begin by the formation of a pre or peri vesical phlegmon. Incision of the focus and counter openings, diagnosis established at this time, the author believes in the placing of a catheter *à demeure*.

at this time. If it succeeds it is well to wait for cicatrization of the wound. Later external urethrotomy.

Suprapubic Incision Preliminary to Resection of the Perineal and Penile Urethra.—DR. TH. JONNESCO.

The author advocates this method in impassible strictures. Two difficulties are more easily overcome, finding of the posterior end, and union by first intention. He has employed it successfully in six cases.

Epididymitis as Primordial Symptom of Urinary Infection in Stricture.—DR. CARLIER reported two cases.

Calculus of Urethra in a Child of Six Years.—DR. REBOUL presented a specimen.

Considerations upon the Pathogeny of a Variety of Aseptic Urethritis.—DR. NOGUÈS reported a case.

Treatment of Gonorrhea by Protargol.—DR. NOGUÈS accords a great value to protargol in the treatment of this affection, whether by lavage or by instillations.

DR. ESCAT finds remarkable tolerance of the mucous membrane of the urethra and also the eye to cyanid of mercury, in strength of 1.5 parts to 1000, using 1 liter in urethra and bladder.

Urethral Ointments and Suppositories.—DR. JANET.

These may constitute a means of treatment, gentle and active, which should not be neglected. They are less irritating in sensitive cases, and penetrate more intimately into the folds and lacunæ of the urethra and remain for a long period in contact with the urethral walls. They are useful in acute and chronic cases.

As a lubricant for catheters and also for dilating sounds, he uses lanolin, 20 gr.; oil of vaselin, 10 gr.; borate of sodium, 0.60 gr.

In urethritis he has adopted the channelled catheters of Casper, and uses three models, one straight, one with a slight curve, and one with the bèniqué curve and covers them with the following ointment: lanoline, 17 gr. 50; glycerin 7 gr. 50; borate of soda, 0 gr. 60; oxid of zinc, 2 gr., in simple urethritis. In chronic urethritis he adds to the same excipient protargol, 2 to 5 per cent.; nitrate of silver, 1 to 2 per cent.; salicylic acid, 0.50 to 1 per cent.

For suppositories he uses small cones of cocoa butter and incorporates iodoform up to $\frac{1}{4}$ per cent.; protargol, 2 to 5 per cent.; nitrate of silver, 1 per cent. These cones fit the filiform extremity of the explorator guide of Malley and may be carried to the bulb. For the posterior urethra they are fitted into an instillator of large caliber and are pushed out with a rubber stylet after the olive tip has entered the posterior urethra.

New Facts in the Castration and Resection of the Vasa Deferentia in Prostatic Hypertrophy.—DR. LOUMEAU.

In 14 cases with chronic retention, complete (6 cases) and incomplete (8 cases), double resection of the vasa exercised no influence either upon the size of the prostate nor upon the vesical function. This makes a total of 35 cases

in the author's hands without result except to protect them against the orchites of catheterization. On the contrary two cases of castration with complete retention gave good results.

Treatment of Prostatics.—DR. CHEVALLIER reports two cases, one case of castration done in 1806, still in good health, urine clear, urination normal. The second, 85 years old, with complete retention, treated since November, 1807, at first by catheter *à demeure*. He now uses the catheter twice a day, at night uses boric-acid lavage; health excellent.

Six Observations of Double Angio-Neurectomy in Hypertrophy of Prostate.—DRS. ALBARRAN AND MOTZ.

Improvement in all six cases. The authors think equal to the results of castration. They will report again.

Vasectomy in Treatment of Hypertrophy of Prostate, after Elapse of Time.—DR. NICOLICH groups his cases under three heads: (1) first attack of complete retention; (2) chronic retention, becoming complete at varying intervals; (3) complete retention. Of the first group, two cases, they no longer use the catheter, prostate smaller. Of the second group, 21 cases, 9 complete cures (dating from 3 years to 6 months), 10 improved, 12 unsuccessful. (The arithmetic is wrong unless the author had 31 cases.)

DR. REYNÈS reported one case of vasectomy, unsuccessful.

DR. NICOLICH reports five cases with Bottini's operation, three cases cured.

DR. MOTZ presents the results obtained up to the present time, 22 cases with the Bottini, complete cure in 12, improvement in 5 cases. He deprecates many of the published observations made because reports are made too soon after operation.

DR. DESNOS read on treatment of prostatic calculi, and believes the cutting operation the only safe one, either the high or low incision, ordinarily the perineal incision is the best; where the calculus is large or is prostatovesical then the suprapubic route is preferable.

DRS. M. H. BOSQUET and CHEVALLIER each reported cases of large vesical calculi. And DR. IMPERT reported a case of vesical calculus in a child.

DRS. POUSSEY, ESTOR, and FORGUE each read on "Extrophy of the Bladder."

DR. THOMAS JONNESCO read on "Immediate Suture after Cystotomy," by a new method of suture devised by his assistants, Jurara and Balacesco, and called by them "Cystorrhaphy by Imbrication." The closure is as follows: stripping up of the peritoneum if necessary. On one of the lips of the vesical wound the mucous and the muscular coat is separated over an extent of $1\frac{1}{2}$ to 2 centimeters. The mucous flap, thus doubled in, is resected and the two mucous lips are sutured by continuous suture of catgut, 0 or 00. The muscular flap is applied over the row of sutures of the mucosa and sutured to the bladder by three rows of sutures. One row in U form which unites the root of the flap to the opposite edge of the vesical wound; a continuous suture unites the free border of the flap to the vesical wall and a third row sutures the mucous portion of the flap to the vesical wall. Thus the parallelism of the mucous and the muscular wound is avoided. It was tried a number of times on dogs, and eight times on man and has always given satisfaction even where the bladder has been infected.

DRS. LEGUEU and HÉRESCO each reported a case of recto-vesical hydatid cysts.

DR. CLADO reported three cases of bladder tuberculosis operated and cured by cystotomy, *curettage*, and cauterization of the internal surface of the bladder. In one case he even excised five ulcerations with the bistoury and sutured the mucosa. In tuberculous cases without ulceration medical treatment should be tried.

DR. MORZ reported complete cure in three cases of vesical tuberculosis.

Histological Examination of Eighty-seven Cases of Vesical Neoplasm.

—DR. MOTZ.

In 87 cases of vesical tumor at the Necker Clinic and in the clientèle of Professor Guyon he found cancer in 13 cases, epithelioma in 2 cases, degenerated adenoma in 3, fibromyoma in 2, and myoma in 1. He has observed 7 cases of vesical tumor which have recurred and does not find sufficient proof of the claim of some authors that benign tumors recur in a malignant form.

DR. POUSSEUX reported a case of nephrotomy on the 12th day of calculous anuria; death.

DR. VIGNARD reported a case of nephrotomy on the 5th day in a case of calculous anuria, uremic for 36 hours; uremia disappeared after the operation.

DR. LOUMEAU read on "Immediate Suture of Kidney after Nephrotomy for Calculous Anuria in Certain Selected Cases."

DR. NICOLICH reported a case of rupture of the ureter by contusion in the renal region. Patient, eighteen years old; fell on left side, slight hematuria for a day, great pain. A month after the accident the left abdominal side was much larger than the right, occupied by an accumulation of fluid. In an interval of 1¼ months fluid was withdrawn by an inspirator six times, 13 liters and 800 grams being withdrawn, the case recovered.

Cystoscopic Catheterization of the Ureters.—DR. REYNÈS uses the Albarran instrument and reports that he has never had an accident. He has used the instrument fifteen times in four patients. Three had pyelonephritis, one had a nephorrhagia. In one case the urethral catheter was left *à demeure* for three days. Renal lavage was made with an aqueous solution of sulpho-benzoate (of sodium?) 5-1000.

Movable Liver Simulating Movable Kidney; Suture of Liver.—DR. GENOUVILLE reports two cases in women, one his own, in which the symptoms were exactly analogous to movable kidney; after operation the movable body in each case was found to be a movable lobe of the liver which was sutured in position.

Catheterism of the Ureter.—DR. PASTEAU claims 140 catheterizations of the ureter with the Albarran instrument, he prefers a catheter with a rounded end 7 or 8 F. No anesthesia, general or local, has ever been necessary. He fills the bladder with 150 grams of fluid in women, 200 grams in men; but has succeeded several times with only 80 grams. He has had only one case of appreciable secondary infection and almost all the cases were out-patients, and not hospital patients. He believes that with a good instrument, catheterization is fairly easy, and with precautions not dangerous, and is a method which every surgeon should know.

Treatment of Pyelonephritis by Lavage of the Pelvis.—DR. ALBARRAN during the year treated six cases of unilateral pyelitis not presenting febrile

accidents. The lavage was made through the ureteral catheter, with solution of boric acid and nitrate of silver (1-1000). In three cases marked relief after five to eleven lavages, disappearance of pain and clearing of urine. Two cases had movable kidney with slight renal retention, 15-20 grams and cloudy urine. The author claims good results with surprising ease, and hopes for amelioration in the severer cases.

DR. HOGGE grants the value of nitrate of silver in vesical bacteriuria, but thinks salol in large doses, 9 grams a day to be better practice in renal bacteriuria.

DR. DESNOS, though catheterization of the ureters is valuable, it is not always exempt from accidents, he has seen four cases of grave febrile condition following catheterization. Two cases were improved in spite of repeated chills; in a third the fever persisted although the catheter was left *in situ*, and ceased when it was withdrawn. The fourth case died on the third day. These facts are not necessarily of a nature to diminish the value of the method but emphasize the fact that these procedures may be followed by serious accidents.

The Treatment of Hydrocele.—DR. MALHERBE in cases of complicated, doubtful, or old hydrocele, prefers the radical cure by resection of the tunica vaginalis. In simple cases he prefers an injection method. After emptying the sac, he injects 5 cm. of a two-per-cent. solution of cocain and after five minutes injects 5 cm. of pure tincture of iodin.

DRS. GENOUILLE and PASTEAU reported a case of enormous hematocele complicated by an omental hernia. The operation consisted in evacuation of the pocket and resection of a large portion of the skin.

DR. LOUMEAU reported cases of circumcision by the method of Rebreyeur.

Varicocele Symptomatic of Renal Tumors.—DR. HÉRISCO.

According to Leguen the cause of this form of varicocele is due to compression of the spermatic veins by the involved ganglia, so that when varicocele is present due to renal tumor the ganglia are affected and operative interference is of little use. The author in 170 observations finds two orders of facts: (1) that there are cases where there is absence of varicocele in spite of marked invasion of the ganglia; (2) cases in which varicocele exists without ganglia. The case of Morestin shows conclusively that varicocele may be due to compression by the renal tumor. He concludes that it is difficult to admit that the varicocele is due to compression by the ganglia.

Selections.

CUTANEOUS DISEASES.

Pemphigus Simplex.—BROCCHERI (Ital. Soc. of Derm. and Syph., *Brit. Journ. of Derm.*, January, 1899, p. 40).

The author had an opportunity of examining the cord in the case of a woman who died in the course of the disease. Hemorrhages were found in the gray matter of the cord. The vessels of the cord and meninges were surrounded by areas of cell infiltration, both red corpuscles and leucocytes; their walls showed a

thickened middle coat. Hemorrhage had occurred in both gray and white matter and in the nerve-roots, the gray substance of anterior horns and commissure being chiefly involved. The multipolar cells of the anterior horns and of Clarke's columns contained masses of coloring matter evidently the remains of extravasated corpuscles and showed evidence of degeneration in nucleus and protoplasm.

Demodex Folliculorum.—DE AMICIS (Ital. Soc. of Derm., *Brit. Journ. of Derm.*, January, 1899, p. 42).

Although previously considered a harmless inhabitant of the skin, in this instance the parasites caused a *café-au-lait* discoloration of the lip and chin of a lady. The microsporon furfur was excluded by examination. The demodex was found in large numbers, as many as twenty-two in one preparation. Measures taken to remove the parasite caused disappearance of the pigmentation. Professor Maiocchi narrated two cases in which the demodex had caused discoloration.

Hysterical Dermatoneurosis.—L. PIERCE CLARK, M.D. (*Buffalo Med. Journ.*, February, 1899, vol. 38, p. 502.).

In the course of an article on hysteria major the author reports the following cases which on account of its great interest we give in full.

A. G., female, aged 18, single, no occupation. Admitted to Craig Colony for treatment in May, 1898. Epilepsy began at three. An uncle had epilepsy; aside from that fact family and personal history is negative. No record of hysterical attacks before admission. Physical examination showed a good, well-nourished physique. Heart was irregular and intermittent; pulse-rate, 95; sensibility, normal. Slight paresis of right side remains. Reflexes exaggerated on right side. Weight, 126 lbs.; height, 5 feet, 5½ inches. Her mouth is unusually small and the face evidences a weak mentality. Cause of the epilepsy was attributed to cholera infantum. Aura, epigastric. The real cause of her epilepsy was an infantile cerebral palsy at three, leaving the right side paralytic for four months. Epileptic attacks occur both by night and day, about seven each month.

Her epileptic attacks are as follows: An attack May 5, 1898; patient had epigastric aura; tonic spasm lasting thirty seconds; body very rigid; hands and feet extended in straight line and lips drawn firmly together. The pupils were dilated to the fullest extent. Violent general clonic spasms, followed tonic period, which lasted about one minute. The thumbs were flexed in palms and knees were widely abducted from the median line of body, and then flexed to the chin. Head was drawn back and to the right side. At the beginning of the clonic period the teeth were forcefully snapped together, biting the tongue severely. She frothed at the mouth and face was purple. She slept after the convulsion in a stertor stage for one-half hour. She suffered no depression after. All of her epileptic fits are similar to these.

June 23rd: patient had a typical paroxysmal hysterical seizure. The eyes were closed and the body was rigid, assuming a strained statue attitude. No response was obtained. She recovered from this paroxysm in a few minutes to pass into the hysterical state, in which condition she remained for eighteen hours. She assumed the passional attitudes described and illustrated so well by Richet. There were zones of anesthesia; pupils were responsive to light and face remained flushed. The fingers were rigid and flexed throughout. Suggestion that stomach-tube should be passed for feeding her, induced her to take food and terminated the hysterical state.

September 14th, following a similar paroxysm with its subsequent phenomena of a cataleptic, passional posing, she had a bluish edematous rash over the entire body (similar descriptions found in works on hysteria by Sydenham and Charcot). Such eruptions are not infrequent in hysteria, and have since been called the blue and white edema of Chareot and Sydenham. A few hours following this rash, trophic ulcers appeared spontaneously on right arm and right buttock. Neither position was subject to irritation or pressure. No temperature or other constitutional disturbance appeared with the rash or the ulcers. On several occasions since September 14th she has had similar hysterical paroxysms, followed by erratic and passional posings. During such times she assumes to talk to God, and sings foolish, childish songs. The ulcers heal slowly.

Acute Pemphigus in the Course of a Fatal Case of Alcoholic Delirium.—

W. O. ROSE, M.D. (*Montreal Med. Journ.*, vol. 28, January, 1899, p. 50)

The patient, a man of 31, poorly nourished, was admitted to the hospital suffering with acute alcoholism. He shortly became delirious and died in five days. At the time of entrance there were found on both legs and right upper arm excoriated patches resulting from blebs and on the left wrist, an unbroken bulla.

Autopsy.—Vessels of the pia all over were injected without any evidence of meningitis. On section the brain showed acute hyperemia.

There were old bilateral pleural adhesions, also of pleura to pericardium; partial collapse of both lobes of left lung, and acute edema at extreme apex of right lung.

Commencing atheroma of aortic valves, and cloudy appearance of heart muscle were noted.

Stomach was small, rugæ prominent, scattered petechiæ over mucous membrane, slight excess of mucus, but no marked gastritis. In duodenum, 1.5 cm. from pylorus, was a radiating scar of healed ulcer; duodenum was slightly congested in upper half; in jejunum some slight congestion of tips of rugæ; a more marked congestion of ileum, in some parts amounting to distinct hemorrhagic effusion into mucous membrane.

Surface of liver was irregularly mottled with yellow; on section firm with congestion and fatty mottling.

Some old perisplenitis was present.

Left kidney was "hogbacked" with capsule slightly adherent; on section congested and firm. Right kidney on section showed uniformly dark color, the vessels of cortex and pyramids being distinctly injected as in opposite kidney.

Treatment of Lupus of the Face by Total Extirpation.—O. TAVASTJERNA

(*Finska Läkaresällskapets Handlingar*, December 1, 1898—*Lyon Médicale*, t. 60, No. 4, p. 135, 1899.)

The result of the operation after two years are given in 18 cases from the clinic of Professor af Schulten. With one exception, the disease extended to the mucous membrane of the nose and mouth (rhinoplasty was done 14 times). In five cases cure has persisted without relapse. Of the remaining 13, relapse occurred in four within a year, the rest at a later period. The author thinks that extirpation is not capable of preventing relapse, especially if the disease is extensive, but it is indicated even in grave cases for the reason, that the patients may be freed from a disfigurement for a certain length, perhaps for a considerable space of time.

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Original Communications.

ELEVEN CASES OF POROKERATOSIS (MIBELLI) IN ONE FAMILY.

BY T. CASPAR GILCHRIST, M.R.C.S. (Eng.).

Clinical Professor of Dermatology, Johns Hopkins University and Hospital;
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Pathological Laboratory of the Johns Hopkins Hospital.)

IN October, 1893, Mibelli described three cases of a newly discovered disease which, after a careful and detailed histological examination, he named "porokeratosis." He also referred briefly to three other cases. The affection began at an early age, and was chiefly distributed on the backs of the hands, feet, on portions of the arms and legs, and upon the neck, face, and scalp. The lesions commenced "as minute, dirty-brown, dry, cone-shaped elevations of various sizes and forms, which became much altered as they very slowly increased in size. They extended centrifugally; the central portion gradually sank in, still remaining callous, but the margin was represented by a raised wavy ridge which presented the features of a raised seam. Some patches grew to a very large size and covered almost the whole forearm. The affection was exceedingly chronic and was unaccompanied by any inflammatory or any subjective symptoms. Mibelli gave the name porokeratosis to this disease on the ground that the most important anatomical lesion consisted in a hyperkeratosis of the sweat-duct and sweat-pore. In one instance a brother and sister were both affected with the disease, mainly on the face and neck.

On January 15, 1894, Respighi, also an Italian, described seven

cases of a disease which he termed "hyperkeratosis excentrica" and which was recognized by Mibelli as belonging to the same group as those which he had reported. In one of the cases the father of the patient also was affected with similar lesions. Two years later, three more cases were described by the same author. Outside of Italy a single instance has been recorded, by Dr. M. B. Hutchins of Atlanta, Ga., in the JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES for October, 1896. In Hutchins' case the process began when the patient was two years of age, on the palm of the left hand. In 1896 he was thirty-two years old, and had the lesions on the left palm, the back of the hand and forearm, and on the face. No histological examination was made. Hutchins compares the boundary of the patches to the "outside of a seam with a thread-like line dividing its lateral halves, and consisting of horny epidermis." No other member of the family had it. It is to be noted that out of all the cases which had thus far been recorded only two gave histories of the occurrence of the disease in other members of the same family. In one of Mibelli's cases a brother, in one of Respighi's the father of the patient, was similarly affected. Since the preliminary notice of this article was published four other observers have reported cases of this disease.

Of the present series of eleven cases, those in which the patients have been examined personally by me, eight cases will be first described. The histories of the remaining three cases will then be given.

CASE I.¹ was a young man twenty-two years old, of good physical build, and enjoying excellent health. He has had the usual complaints of childhood, but there had been no illness which had borne any relation to the present disease. His occupation now is that of a mechanic. He first came under observation at the Johns Hopkins Hospital nearly three years ago for an eruption on the face, and at that time, and for some months later the disease was not diagnosed. It was only after a number of microscopic examinations had been made, and after Mibelli's and Respighi's articles and photographs had been seen, that the disease was recognized. The examination of a similar eruption on the patient's father also contributed not a little to the determination of the diagnosis.

History.—The disease began when the patient was five-years old, on the ears, nose, chin, neck, on the backs of the hands, and on the right forearm. Its mode of onset was very gradual and the growth of the lesions was also excessively slow. There have never been any subjective symptoms since the commencement of the eruption. From

¹Cases I. and V. were exhibited to the members of the American Dermatological Association at the meeting held in Washington, D. C., May, 1897.

what the patient says, the lesions first made their appearance as small dirty-brown papules, the size of a pin's head, which were raised, semi-globose, and slightly scaly (?) but never inflammatory. During the last few months these observations have been confirmed by the writer, and the patient has noticed fresh, very minute lesions arise in the manner already described.

Present Condition (i.e., about twelve months age).—The distribution is on the nose (bridge, lateral surfaces and alæ), both cheeks, right upper eyelid, just below and almost encroaching on the left lower eyelid, upper lip, chin, just beneath the chin, on the lateral surfaces of neck (especially on the right side), on the anterior and posterior portion of the ears, and on the lower portion of the back of the neck.

Patches were also present on the backs of both hands; there is one lesion on the exterior surface of the right forearm and on the left palm.

So far as regards the character of the lesions they could very properly be divided in four varieties:

1. The smallest varied from $\frac{1}{2}$ to 1 mm. and could only be detected, particularly on the face, to which they were practically limited, after careful and close examination of the skin; they presented a dirty-brownish, slightly conical, papular appearance, and conveyed to the touch the sensation of belonging to the condition known as goose-flesh. During the time the patient has been under observation he has been seen about once a week and new lesions have made their appearance on the normal skin in this manner.

2. The lesions of the second variety constituted by far the largest number of the lesions. In diameter they ranged from less than 2 to 9 mm. and were characterized by features which probably afford the principal diagnostic sign of this disease, viz., circular, oval or irregular, sharply limited areas, the margins of which consisted of a horny ridge, which varied in height with the size of the lesion and the condition of the cleanliness of the skin. The central portion in the larger plaques presented a somewhat depressed and rather atrophic, although somewhat callous, flat surface and contained no hairs, even when situated in a hairy region. Seen through a hand-magnifier the lesions presented the appearance of miniature volcanoes. The ridge, when well-marked, had sloping edges and on the summit presented a minute continuous furrow running along the center. To the touch the ridge possessed a horny consistence and was dry and rough. Only in one or two instances were there any signs of areolæ. In some of the lesions the ridge did not seem to be continuous, but was made up of a series of

minute hillocks which appeared to correspond sometimes with the openings of the hair-follicles. The color was a dirty-brown, but in the smaller variety the contrast was not very marked, the normal skin being much tanned. A few of the lesions on the nose were limited by a slight marked furrow instead of a ridge, and the enclosed area appeared almost normal. During the course of the treatment a number of these lesions were curetted and the bleeding which followed was quite as marked as is usually met with after curetting small epitheliomata of the face. Some rings were found which were hardly visible to the naked eye and could only be detected through a magnifier. The margin consisted of a continuous blackish, very thin, very slightly raised line, which had sometimes more the appearance of a groove. The enclosed area presented a very slightly atrophic appearance. On the ears, and especially near the free borders, the lesions assumed irregular shapes, but were still characterized by the marginal furrow on a raised ridge. These lesions always returned even after severe curetting and the application of a stick of silver nitrate. The recurrence took place in about two months, either as a minute papule or as a ridge on the scar, the papule being about 5 mm. in diameter. (Five of these have now been observed on the cheeks, some also on the nose and ear.) At first they were of a dirty-brown color and conical, but some weeks later when they had extended centrifugally, they would become depressed in the center and form a slight peripheral ridge. After thorough washing of the skin the ridges are also much less marked.

3. Of the confluent variety the only example was seen on the right side of the neck, where two had become confluent. A single ridge is to be made out which joins the two lesions.

4. One lesion assumed the character of a wart; it was situated on the left palm over the left metacarpo-phalangeal zone; it measured about 9.5 cm. in diameter, was raised, very horny, hard, and dry, and showed some evidence of a peripheral seam.

In this case then the primary lesion was a minute papule which had appeared, during the course of weekly observations, either on the normal skin or on the scars left after removal by curetting and the application of caustic. The growth of the lesion was very slow and proceeded in an excentric direction with the gradual depression of the central portion and the formation of a peripheral ridge along the internal edge of which ran a thin blackish line. The lesions on the neck have been watched carefully; they have increased in size only very slightly during the last eighteen months. No crusts or scales of any kind were observed on any of the different varieties of the patches. No signs of inflammation were observed around any of the lesions. There were no

lesions on any other portions of the body or on the mucous membranes.

There was no history of syphilis or tuberculosis.

There have been excised from the patient, with his full consent, twenty lesions of all varieties, including those which have been seen to appear on the normal skin and on scars resulting from the removal of larger lesions. The histopathology will be described later.

CASE II. was a brother of Case I.; he was twenty years of age and did not present anything of interest other than the similar characteristic lesions. On the left side of the middle portion of the nose were four patches which had existed there ever since he was five-years old; these were the only ones to be found over the whole body. They measured about 2 mm. in diameter; they were more square than circular in shape, and two of them, instead of being limited by a ridge, presented a margin which appeared to consist of a minute continuous furrow of a slight brownish color while the area within presented the appearances of normal skin. The rest exhibited the usual thin, horny, peripheral raised elevation. There never had been any subjective symptoms. Two of these lesions were excised with the patient's consent.

CASE III. was another brother aged seventeen, also enjoying good health, and in whom the first evidences of the disease had been detected by the mother and brother before the writer saw him. Only one small lesion, 2 mm. in diameter, could be found on the right side of the neck; it was irregular in shape and was sharply limited by a slightly raised ridge. It could be felt as a rough, thin elevation. There appeared to be some evidence of other lesions having existed on the face and having spontaneously disappeared.

CASE IV. was a third brother aged fifteen, who had a number of small lesions on the nose and upper lip. One patch, about 15 mm. in diameter, was faintly marked and situated below the inner canthus of the right eye. Another, 2 mm. in diameter, was situated on the bridge of the nose, and a third, of about the same size, appeared on the upper lip just below the left ala of the nose. Although all these lesions were only faintly marked, that they were distinct is shown by the fact that they had been detected by the other members of the family as belonging to the same disease. The ridge and scar were only faintly visible to the naked eye but could be seen distinctly with a hand-magnifier.

CASE V., the father of the preceding patients, presented far more marked and pathognomonic signs of the disease than any of his sons. He is sixty-five years of age, below the medium stature, and is now unable to work, although he enjoys fair health. The distribution of the disease is on the temples, cheeks, neck, the dorsum of the fingers

and hands, the palmar surfaces of both thumbs, on the wrists (anterior and posterior), the extensor surface of the forearms, the dorsum of the feet and on the anterior surface of both legs. The disease commenced when he was about nine years old on the face, hands, and legs. The lesions were chiefly of the second variety, already described, and varied

FIG. 1.



Hands of Case V, father of Case I. A, B, C, D indicate lesions.

much in size and shape. (See photographs, Figs. 1 and 2, A, B, C, D, etc., which show the lesions on the backs of the hands.)

The distribution on the hands, wrists, feet, and legs presented a remarkable symmetrical arrangement. This was particularly notice-

able on the dorsum of both hands. The largest patches are situated over the middle of the corresponding second metacarpal bone and measured 10x13 mm. These plaques are irregular in shape but some-

FIG. 2.



Hands of Case V, father of Case I. A, B, C, D indicate lesions.

what oblong; they are sharply limited by a raised horny ridge which encloses an atrophic, flat, horny, smooth area which contains no hair and shows none of the natural lines of the skin. These two particular areas have never sweated, so the patient says. He volunteered this

information without being asked and has taken special notice of this feature again and again for many years.

The marginal ridge contains one or two hairs and bears on the summit evidences of a furrow.

On the dorsum of both third fingers near the knuckle are two similar but less hornified plaques: they are irregular in shape and enclose an atrophic, hairless, smooth area; only along one edge are there evidences of a furrow.

The other lesions on the backs of both hands, wrists, and forearms are somewhat alike in their general features; they vary from 1.5 to 12 mm. in diameter: some are perfectly circular and are limited by a thin, raised, horny ridge which is better felt than seen; on close observation a well-marked, continuous furrow surmounts the ridge. In some lesions the central areas and the ridges are of almost the same color as the surrounding skin, which is very much tanned. Some of the smaller plaques are not very noticeable at first glance; one patch showed the remains of a hair in the central portion. On the palmar surface of both thumbs near the metacarpo-phalangeal joint are two lesions, one on each thumb, which could be mistaken, hardly indeed for warts, but for irregularly shaped horny excrescences. There is no central depression, but the surface is irregular and there is some slight evidences of a peripheral furrow. The patient says these were warts about twenty years ago.

The patches on the face and neck were of the circular or irregularly shaped variety with the marginal raised ridge and seam and a central atrophic depression.

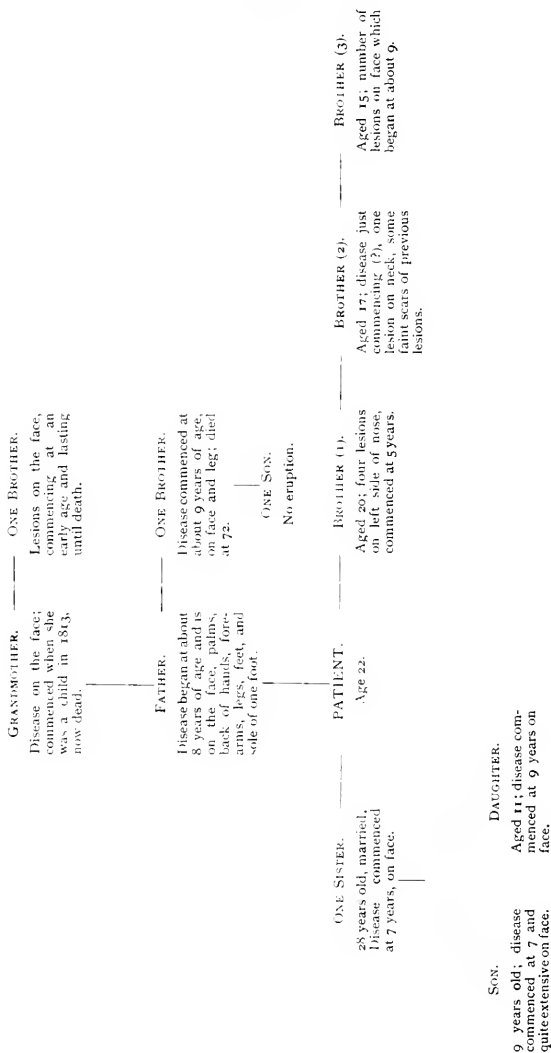
On the lower extremities there is one lesion on the side of the right heel 5 mm. in diameter and very horny; one lesion on the instep 1.5x1 cm., one over the dorsum of the foot about 5 cm. in diameter, and quite a number on the anterior surface of the leg. On the left foot there are similar patches on the instep, two between the heel and internal malleolus and nine on the anterior lower portion of the leg, varying from 1 mm. to 1 cm. in diameter. There are also four lesions on the posterior surface of the lower half of the leg from .5 to 1 cm. in diameter and a keratotic patch in the center of the left sole. All these lesions presented characters similar to those already described on the hands except that the hornification was less pronounced. The legs and feet had not been washed for some months and the features, especially the blackish thin line of the peripheral ridge, were well marked. There were no subjective symptoms nor had there ever been any. The patient says the horny masses would increase on the backs of the hands so that

they would trouble him and he would then have to scrape them down with a knife.

Three lesions were excised from this patient, *viz.*: one from each patch on the palmar surface of the thumbs and one from a well-marked longitudinal furrow on the back of the hand.

CASE VI. is a sister of the first patient and daughter of Case. V. She is twenty-eight years old, married, and has six children. There are nine lesions of the second variety, of various sizes and shapes, on her face, but since she picks them constantly with the finger-nails the characteristic features are not very well marked. They are not present on any other portion of the body. The disease first made its appearance when she was seven years old.

CASE VII. is a son of the preceding. He is now nine years old and the disease was first noticed nearly three years ago. He is a fairly well nourished boy, of the average height, and is of light complexion. The eruption commenced on and is still limited to the region of the face. On the nose there are twenty-two lesions, fourteen on the left side and middle portion and eight on the right side. On the right cheek there are nine patches and eleven on the left; on the chin nine lesions could be counted, on the forehead six, two of which are situated near the scalp. There is one small plaque situated near the right angle of the mouth and two adjoining the left angle; one of the latter encroaches on the mucous membrane of the mouth. One lesion is on the upper lip and one on the lobe of the left ear. The total number of lesions is sixty-two. These vary in size from less than 1 mm. in diameter to 1 cm. The smallest are situated near the tip of the nose, the largest being on the left temple. The minute lesions possess characters similar to those which have already been described, *viz.*: dirty-brown, conical, rough papules; and in this boy as soon as they increase in size to 1 mm. in diameter there is a distinct evidence of a sinking in the center. When they reach the size of a pin's head, *i.e.*, 2 mm. in diameter, the peripheral ridge is well marked. In this patient the horny character of the ridge is more noticeable than in the lesions of the face of the preceding cases, especially to the touch. About five of the plaques were made up of confluent lesions. On the marginal ridges the furrow which characterized the lesions of the older cases was not easily recognized. With the use of a hand-magnifier one could see sometimes microscopic hillocks within the area enclosed by the ridge. There are a few scars which appeared to have resulted from the spontaneous disappearance of former similar lesions. No subjective symptoms were present nor had any accompanied the appearance of the eruption; no signs of inflammation were associated with the



lesions. The palms of the hands have a tylotic appearance. The patient presents quite a number of enlarged lymphatic glands of the neck, and two uncles on the father's side are suffering from consumption.

CASE VIII., aged twelve years, a sister of Case. VII., presents some few symptoms of this same disease. The affection first appeared about one year ago. The patient is a well-nourished, healthy looking girl. There are seven lesions of various sizes on the face, but they are not very conspicuous and four of them could be recognized only on close inspection. On the face are found quite a number of scars, slightly whitish and atrophic, which appear to be the result of the spontaneous disappearance of former patches. This assumption is probably correct in view of the fact that evidences of a similar process is noticeable in four of the patients.

There are four other children of Case VI., two boys and two girls, but it is reported that none of them present any features of the disease. The writer has not personally examined them, as they live in the country. The parents fully expect that the disease will appear in some of them, since it has recurred so persistently in four generations. The father of the children considers it as some kind of a curse.

These eight cases, five males and three females, have been personally examined. The remaining three cases which have been included in this paper concern patients who are now dead and whom the writer never saw. The first patient, the young man twenty-two years old, whom the writer had under observation for two years, described very clearly the condition of the eruption on the other seven relatives who were seen later, and his account was found to be so very reliable that his description of the disease as it had occurred in his deceased relatives and the fact that his statements were fully confirmed by many of his living relatives on being questioned separately by the writer, render it highly probable that the data which will be given may be considered as thoroughly reliable.

CASE IX.—The patient's (Case I.) grandmother had the affection on the face only, and she caught (?) it, so this history is given, in 1813, when she was a child, from a person who stayed with the family for a short time and who came from Europe.

Case X.—A brother of the grandfather also had the same disease from childhood, but only on the face.

Case XI.—The uncle of Case I., on the father's side, was similarly afflicted from childhood until the time of his death at seventy-three years of age. The lesions in this case were distributed over the face, legs, arms, hands, and wrists, and were never treated. They were very

similar to those already described as occurring in the father (Case IV.) of the patient.

A table is herewith appended showing the eleven cases distributed over four generations.

All these cases show the same characteristic features and can practically be assigned under the four groups which have already been described. The principal lesion, which appears to be pathognomonic of this disease, is represented by the plaques of various sizes and shapes

FIG. 3.

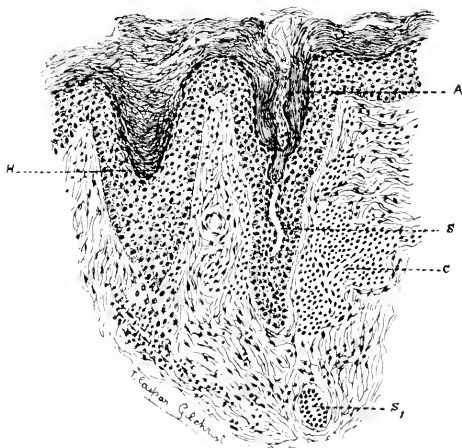


Fig. 3 represents a section of a very small growth which appeared to be a recent one and was removed from the chin of Case I. The hyperkeratosis of the mouth of a sweat-duct A and the neighboring sebaceous gland H are well marked. S is the intra-epidermal portion of the sweat-duct. S is the duct. C is a collection of lymphoid cells collected about blood-vessels magnified about 134 diameters.

with a margin consisting of a rather prominent horny ridge, along the summit of which runs a thread-like blackish line, the center of the plaque, in most instances, presenting an atrophic hairless area which does not sweat. No inflammatory symptoms are present. That the disease is a hyperkeratosis seems to be clear even when judged from a clinical standpoint.

The Pathological Anatomy.—Of observations made upon hundreds

of sections which have been examined from the twenty portions excised from Case I. only the general results will be given. Of the lesions excised some represented the minute primary outbreaks from the cheeks and nose, five of which were observed to appear while the case was under observation.¹ A number of the other portions consisted of the plaques of various sizes, which exhibited the ridge and depressed center, and the remaining sections comprised the more chronic lesions from the neck and ears. In removing the growths some of the inci-

FIG. 4.

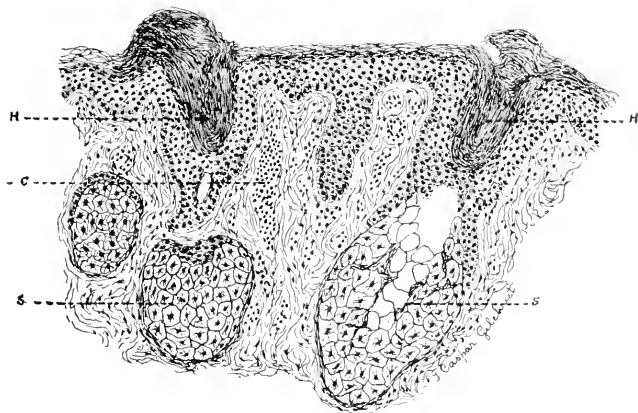


Fig. 4 represents a section of the smallest lesion where the center has become depressed and thus left a peripheral ridge. The lesion was excised from the nose of Case I. H H indicates the section of the ridge, which consists of a marked hyperkeratosis of the mouths of two sebaceous glands (S S). C is a collection of lymphoid cells. Magnified about 100 diameters.

sions were made comparatively deep, others only superficially. Small portions of the normal skin were also removed so that comparison between the normal and diseased skin might be facilitated. In the normal skin (the patient has slight seborrhea oleosa and a few comedones distributed over the face) the horny layer was only slightly marked, the blood-vessels of the upper half of the corium were more dilated than one would expect to find in normal skin, and there was in one hair-follicle some hyperkeratosis that extended down to the seba-

¹Two of these had appeared within a month or so on the scar which had resulted after removal of the previous lesion with the curette and caustic.

ceous gland. This latter observation was not apparent clinically. Collections of young connective-tissue cells were seen in the neighborhood of these dilated vessels. These conditions which one would not expect in normal skin were probably due to seborrhea oleosa and the few comedones which were present.

The smallest lesion I excised was scarcely visible to the naked eye and showed on section a hyperkeratosis over the opening of the sweat-duct and neighboring epidermis. Over the epidermis the hyperkeratotic mass was slightly thicker than the underlying mucous layer. Only faint evidences of a granular layer were visible between the mucous and horny layer. The sweat-canal pierced the horny plug, in which were present numerous fairly well stained though somewhat shrunken nuclei. In the corium were large numbers of lymphoid cells which were massed round the blood-vessels. One venule in the upper corium was markedly dilated. Another very small primary lesion showed the presence of a pronounced hyperkeratosis of the mouth of one hair-follicle, of an adjoining sweat-pore, and of the intra-epidermal portion of the sweat-duct. (Fig. 5.) The hyperkeratosis extended in a marked degree down and beyond the hair-follicle to the sebaceous gland and also over the surface of the skin between the openings of the glands. The dermal portion of the gland was only slightly dilated. (*s.* Fig. 5.) In the region of the hyperkeratosis in the upper portion of the corium there were quite large collections of lymphoid cells (*c.* Fig. 5), but they were not as numerous as in the first lesion. The horny layer was four times as thick over the mouths of the sweat and sebaceous glands as on the normal portion of the skin: it was made up of closely packed lamellae with an appearance similar to that of the horny layer of the palm of the hand. In the horny mass, especially in the lower layers, were numerous deeply stained (hematoxylin) bodies which were probably degenerated epithelial nuclei. The nuclei were more numerous and less shrunken at the margins of the lesion. In the lower portion of the plug at the mouth of the follicle the original shape of the epithelial cells was still retained but only faint evidences of nuclei were seen. The stratum lucidum and granulosum were barely visible between the horny mass and the mucous layer. The openings of the sweat-duct appeared to be obliterated or rather blocked by the presence of the plug. (*a.* Fig. 5.) One very small lesion (1 mm. in diameter), which was beginning to show signs of the peripheral ridge and a depression of the central area, was excised from the nose. The section appeared to show that the horny elevation was due to hyperkeratosis of the mouths and ducts of the sebaceous glands. (Fig. 6. *h.h.*) The plugs consisted of closely laminated horny material and evidences of

remains of nuclei were seen in the plug. In the area between the plugs there was no apparent atrophy of the epidermis and the horny layer was about normal in thickness, but the papillæ were not so well developed in some places, whereas in others they were elongated. The granular layer was not visible in the area of the ridges but in the en-

FIG. 5.

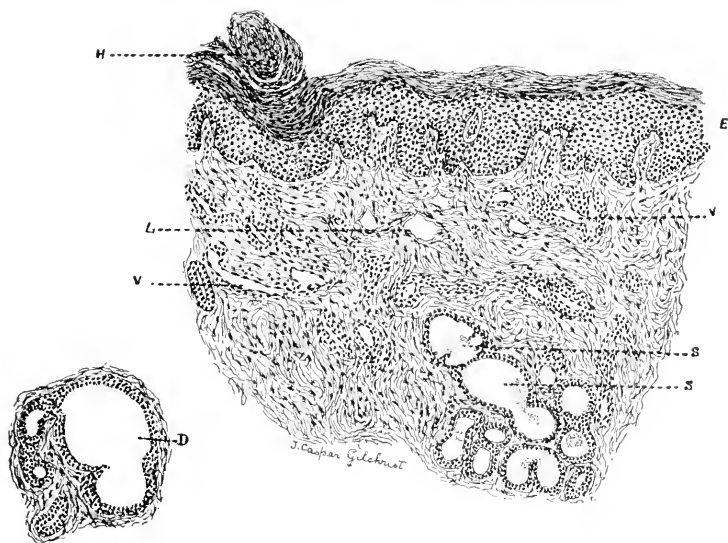


Fig. 5 is a section from a larger-ringed lesion than Fig. 6, only the ridge (H) on one side is shown. H represents the well-marked hyperkeratosis of the mouth of a sweat-duct, the connection of which with the very dilated glandular portion S S has been followed in serial sections. V V are blood-vessels. L indicates dilated lymphatics. E is the epidermis. Magnified about 90 diameters. D is a dilated portion of a sweat-gland from another section of the same series. Magnified about 70 diameters.

closed area it was again fairly well marked. The corium showed the presence of large collections of lymphoid cells and young granulation cells, especially around the blood-vessels, which were somewhat dilated. (c. Fig. 6.) Between the plugs were openings of two sebaceous glands and two sweat-glands; the latter showed some evidence of

hyperkeratosis but not so strongly marked as in the mouths of the sebaceous glands.

In specimens slightly larger than the preceding the ridge consisted of pronounced hyperkeratosis of the mouths of adjoining sweat and sebaceous glands; in the enclosed area of the ringed lesion which contained one or two minute hillocks, observed clinically, there was some hyperkeratosis of the hair-follicles. The horny plaque which formed the depressed area consisted of closely packed lamellæ, which contained faint traces of remains of nuclei and the granular layer was fairly well

FIG. 6.

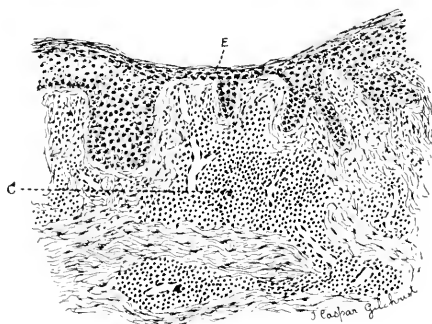


Fig. 6 is a section from a portion of a large ring-shaped patch on the neck of Case I. E represents the atrophied condition of the epidermis and C indicates the very large collection of lymphoid cells in the upper half of the corium. Magnified about 70 times.

marked. The corium presented appearances like those already described.

In sections from a still larger ring, 2 mm. in diameter, the peripheral ridge could be observed very distinctly with the naked eye as two prominent projections on the surface of the epidermis. The ridge on one side corresponded to a large plug (*h.* Fig. 7) occupying the mouth and duct of a dilated sweat-pore, the course of which could be traced down into the derma to the gland. (*s.* Fig. 7.) The sweat-pore, the lower two-thirds of the duct and glandular portion, were markedly dilated (*s.* Fig. 7) and the wall of the latter was slightly atrophied. The opposite side of the ridge, which was twice as high, consisted of a plug occupying the adjacent excretory ducts of a sweat and sebaceous

gland. The shrunken nuclei, some of which were deeply and others faintly stained, could be traced to the surface of the plugs, but the outlines of the cells were very faint. The central portion showed the epidermis (*c.* Fig. 7) to be slightly swollen and the horny layer to be much more compact than normal, whereas the mucous layer was deeper than usual, especially the interpapillary portion, and the interepithelial spaces were wider than normal. The mouths of the sebaceous glands within this area showed a mild grade of hyperkeratosis. In the corium

FIG. 7.

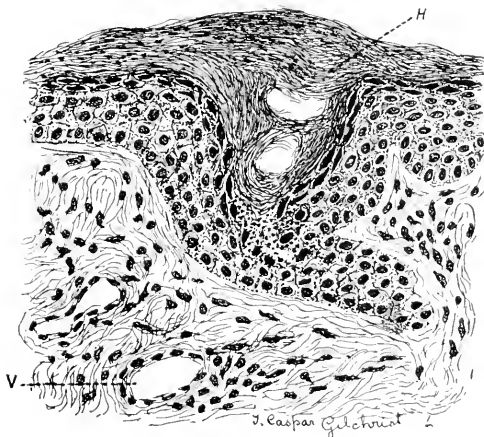


Fig. 7 represents a section of the margin of a slightly marked ring from a lesion on the nose of Case II. H indicates the marked hyperkeratosis of the mouth of the sweat-duct. V is the dilated blood-vessel in the upper corium. Magnified about 240 diameters.

the blood-vessels were in one or two places markedly dilated and the numbers of lymphoid cells were very large, especially in the region of the plugs.

Still larger lesions, especially those from the nose and neck, presented a picture somewhat similar to that of a mild keratosis follicularis (White and Darier's). There was marked hyperkeratosis of the whole area and where the plugs were largest there was distinct thinning of the mucous layer beneath. The granular layer consists of three or four rows of cells, the interepithelial spaces are wider than normal, and

nuclear figures were also far more numerous than normal. In the plugs, which were solid, the nuclei were numerous, shrunken, and well stained, and many nuclei were broken up. In other sections the glandular portion of the sweat-apparatus showed in some regions a swollen condition of the cells, whose inner portion projected rather irregularly into the canal and the protoplasm appeared to be coarser than normal; in other regions the cell-protoplasm stained faintly and appeared to possess but poor protoplasm.

In summing up the findings in this case it is shown that the disease commences usually as a hyperkeratosis round the sweat-pore, or the opening of an acinous gland may be the commencing point, or a sweat-pore and a neighboring opening of a sebaceous gland. The lesion at first is scarcely visible to the naked eye. It then begins to grow very gradually in an excentric manner, attacking the surrounding epithelial layer and corium. Before depression of the central portion occurs numerous, somewhat shrunken, deeply staining nuclei are present throughout the whole of the hyperkeratotic portion, and the granular layer almost disappears. As the process advances still further these numerous nuclei become less and less defined, and when the central portion of the lesion becomes depressed the hyperkeratotic portion becomes more and more compact, giving it the appearance like that of the horny layer of the palm or the sole, with only very faint traces of nuclei in the deeper portion. On account of this sinking in of the center the periphery is comparatively much raised and shows the numerous deeply staining nuclei throughout the whole part. The hyperkeratosis can extend down the hair-follicles and sebaceous glands. The lower two-thirds of the sweat-duct and sweat-glands in some of the older lesions were markedly dilated, whereas in still older lesions the glandular apparatus appeared to be atrophied, and around the sweat-gland a larger amount of connective tissue was present than normal. With reference to the corium, this appears to be affected secondarily and it showed the presence of large numbers of lymphoid cells, of dilated blood-vessels and lymphatics.

Two lesions were excised from Case II., who had only four small patches on the nose, one of which appeared to present the simplest variety of the disease.

Histologically, the sections showed a not very pronounced hyperkeratosis of the intra-epidermal portion of the sweat-duct and of the horny layer around the sweat-pore. (*h.* Fig. 9.) The duct and glandular portion of the sweat-apparatus was somewhat dilated, but not to any great extent. The granular layer was still fairly well marked beneath the horny mass and traces of well-stained shrunken nuclei were

observed throughout the whole mass. In the central portion of the lesion the papillæ were flattened out very much.

The blood-vessels of the upper half of the corium about the region of hyperkeratosis were somewhat dilated (v. Fig. 9), and the number of young connective-tissue cells and lymphoid cells were greater than normal, especially in the neighborhood of the vessels and the sweat-duct. The sebaceous glands were unaffected, but one hair-follicle was noted which showed some evidence of hyperkeratosis at its opening. The sweat-glands and duct were also practically normal. In another lesion excised from the same case similar changes were observed, but the lower half of the intra-epidermal portion of the sweat-duct was dilated, as well as portions of the glandular apparatus.

In the lesions excised from the back of the hand of the father (Case IV.) there was pronounced hyperkeratosis of the sweat-pores and intra-epidermal portion of the sweat-duct as well as of the hair-follicles. The mucous layer beneath the plugs were depressed and much thinner than normal and in places there was no traces of a granular layer. The horny mass was quite compact and showed very few traces of nuclei. Neither the sweat-duct nor the glomerulus appeared to be dilated or abnormal. In the area within the ridge the epidermis was somewhat atrophied but the papillæ still existed. At the margin of the lesions numerous fairly well-stained and shrunken nuclei were present in the horny mass but in the older, more compact, horny plaque which formed the central area nuclei were practically absent and the granular layer was present. Large collections of lymphoid cells were found beneath and in the neighborhood of the larger plugs, and the blood and lymph-vessels were dilated.

In the section from the palmar lesion there was also marked hyperkeratosis but corresponding to the apparent furrow were depressions in the mucous layer due to the abnormal keratinisations pressing on this layer with the marked thinning of the mucous layer.

The collection of cells in the corium was not very evident in these sections. The sweat-apparatus also did not appear to be much disturbed.

In one portion excised from the boy (Case VII.) numerous sections were examined but they did not show anything markedly different from what has been already described except, perhaps, that within the area enclosed by the ridge, sweat-ducts and glands were very scarce in number and not at all well developed, and that the sweat-pore and intra-epidermal portion of the duct were more affected than the opening of the sebaceous gland.

None of the lesions excised showed any evidence of inflammation.

The elastic tissue appeared to be normal in the sections examined. The furrow which was seen clinically corresponded often to the depression between adjoining plugs, *e.g.*, of a neighboring sweat-pore and opening of a sebaceous gland.

The results of the histological examinations can then be summed up about as follows; they also establish the following facts.

1. There was a true hyperkeratosis, commencing, apparently, sometimes in the deeper portion of the horny layer, sometimes in the upper portion of the mucous layer.

2. It occurred primarily most frequently around the sweat-pore and the intra-epidermal portion of the sweat-duct. In some lesions the disease commenced round the mouth of a hair-follicle, while in other specimens it appeared to attack an adjoining sweat-pore and hair-follicle at the same time.

3. Some sections presented almost the picture of a mild keratosis follicularis, especially those from the lesions from the ears.

4. When the lesion reached the diameter of 1 mm. the central portion became firmer, more compact, and thus more depressed than the peripheral portion, which thus formed a ridge.

5. The central portion of one lesion presented a marked atrophy of the mucous layer, so extensive that only one layer of cells remained covered by the horny plaque.

6. The changes in the corium were very marked and even in the earliest stage of the primary lesion there were large masses of lymphoid cells beneath the hyperkeratotic area; the blood and lymphatic vessels also were markedly dilated in the upper half of this region.

7. The sweat-glands and ducts in a number of the excised portions were unaltered, whereas in others marked dilatation of the whole sweat-apparatus beneath the epidermis was present. In some of the lesions there could be detected some atrophy and there was evidence of sclerotic changes in the surrounding tissue.

8. In some specimens the hyperkeratosis affected not only the follicular portion of the sebaceous glands, but extended down into the acini. In the sections from the nose the glands were very large.

9. The disease was unaccompanied by any inflammatory symptoms.

10. No micro-organisms were found in any of the specially stained sections.

Thinking there might possibly be some parasitic cause for the disease, which might account for the return of the lesion even after severe curetting and the use of caustics, after applying a small very hot instrument to one small lesion I then excised it fairly deep. The piece was then placed on sterile blood-serum. In a few days the staphylococcus

aureas and citreus grew and the fact that these are usual skin cocci showed that the technique was not perfect. The experiment was repeated more carefully but the results were negative. This does not, of course, entirely exclude the possibility of a parasitic origin of the disease.

Etiology.—There is no doubt when one glances at the family chart of the cases just recorded that heredity plays a very important part. The disease does not appear to be contagious, otherwise the four married members would, in all probability, have conveyed it to the respective husband or wife; but no such event has occurred. There is no evidence to prove that the disease is parasitic. These investigations go to show that Mibelli's assertion, that the affection is a special form of hyperkeratosis, is correct. Tommasoli, in criticising Mibelli's monograph, suggests that the disease is due to auto-intoxication, but the history of heredity disproves such a conclusion.

Treatment in the first case extended over two years and excisions of all the small lesions of the face had been carried out. Scars of course have resulted, but these are not very marked considering how deep some of the excisions had been. In two cases the electric needle, which has not previously been tried in this disease, was used with excellent results. It caused very little scarring and there has been no return. I would recommend the use of this mode of treatment especially for lesions on the face as it appears to eradicate the disease.

Nosology.—Mibelli's title "Porokeratosis" which he gave to the disease is not exactly correct. That there is a marked hyperkeratosis of the sweat-pores is quite proven, but there is also just as great a hyperkeratosis of the hair-follicles especially in the pronounced cases, although in one of our patients the sweat-pores were far more affected than the follicular openings. The title then of "Porokeratosis" is too limited. The remarkable excentric growth of the lesions, which is so characteristic of this disease, is not designated at all in the title.

Respighi's title "Hyperkeratosis excentrica" is a much better one as it indicates the excentric character and would be enough to distinguish the disease from all other forms of hyperkeratosis.

The title "Porokeratosis excentrica" might be offered as a still more distinctive one. In his article Mibelli discussed the appearances of hyperkeratosis of the sweat-pore which appears in other diseases, *e. g.*, lichen planus. From an examination of numerous sections from three cases of lichen planus I can certainly agree with Mibelli that there is no relation between this condition and porokeratosis. The question has been much discussed whether this disease is at all allied to the ichthyosis group. I quite agree with Respighi and Mibelli that there is nothing

in common, either clinically or histologically, with ichthyosis communis. The observation of the cases just recorded also confirm Respighi's statements that porokeratosis excentrica is quite distinct from ichthyosis cornea partialis (Philippson), the ichthyosis linearis neuropathica (Koren and Cutter), the nævi, or the porokeratosis scutularis of Unna.

I also agree with the same observers that we are dealing with a true hyperkeratosis which attacks primarily the mouths of the free tubular and acinous glands, and that it is a disease *sui generis*.

Tommasoli in discussing the etiology of Mibelli's and Respighi's disease was prepared to group it under his autotoxic keratodermias but as far as our cases are concerned heredity is the chief etiological factor and not auto-intoxication. Mibelli made the assertion in his paper that although the disease can occur in many members of the same family yet it was not hereditary, but our cases prove the contrary.

Mibelli also discusses in detail the comparison of his porokeratosis with ichthyosis hystrix which, as Unna observes, does not belong to the ichthyosis group at all, but to the nævi, and his conclusions, with which I agree, are that the disease under discussion does not belong to the nævi group. Respighi thinks that the disease is a parasitic hyper- or porokeratosis of the mouths of the tubular and acinous glands, but the evidence thus far seems to negative this assertion. Our cases appear to prove that the disease is not contagious.

Respighi has also compared the lesions of this disease in its serpiginous advance and preference for the backs of the hands, fingers, and nail-folds to the ordinary wart.

Porokeratosis excentrica is a disease by itself and cannot be grouped under the lichens or ichthyosis, but as Unna has suggested, it may be somewhat allied to lichen and ichthyosis, although neither of these are in the strictest sense hereditary.

Ducrey's and Respighi's new title of "hyperkératose figurée centrifuge atrophiante" is too cumbersome, although very descriptive.

Comparison with the Previous Cases Recorded.—The distribution and characters of the lesions in the case just described agree in the main with those described by Mibelli, Respighi, and others. Some exceptions are, however, to be noted. In one of my cases (Case VII.) one lesion encroached on the mucous membrane of the lip and in more than one of the patients a spontaneous cure of some of the lesions had taken place. Such a family history as has just been recorded is at present without a parallel.

Respighi has noted lesions attacking the nails and Ducrey and Respighi relate cases exhibiting numerous lesions in the mouth.

The interesting features of these cases may be summed up as follows:

1. Only one case has been previously recorded as having occurred in America. (Wende's case was recorded 18 months after my preliminary notice.)

2. The distribution and character of the lesions in all the cases is practically the same as in the cases described by other observers.

3. The recurrence of the lesions even after severe curetting and the application of silver nitrate.

4. The careful observations of the recurring lesions and also the appearance of new lesions.

5. The eruption occurring in eleven members of the same family in four generations with the entire absence of any contagiousness of the disease is the strongest evidence which has thus been put forward that this disease is hereditary.

6. The disease commences as a hyperacanthosis of the rete in the region of the mouth of the tubular and acinous glands with a decided preference for the former, then follows a hyperkeratosis. Marked changes occur in the corium, *viz.*, large number of lymphoid cells, dilatation of the blood-vessels and lymphatic vessels, etc.

7. Many discrete lesions have been cured by the application of the electric needle.

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PLASTIC RESECTION OF URETHRA FOR A TRAUMATIC URETHRAL STRICTURE WHICH HAD REQUIRED THE PERSISTENT WEARING OF A SILVER CATHETER FOR TWENTY-FOUR YEARS.

BY F. TILDEN BROWN, M.D.,

TR. E., U. S., age 45 years, married, no children. In 1861, this patient, when eight years old, fell from a hay-loft astride a manger. A nail in his trouser-pocket was driven by the impart through the scrotum and bulbous urethra. A urethra-scrotal fistula resulted. Unfortunately the scrotal aspect of this lesion made the greater impression upon his medical attendant, and at this point alone frequent operations were made to check the issue of urine; these repeatedly failed until a year after the accident the fistula closed permanently, only to confront the patient with a much more serious annoyance—a urethral stricture—so tight as to permit urine to pass only in drops and that after sitting over a basin of hot water.

Urethrotomy was then performed to permit the introduction of a metal catheter. This was worn in the urethra for four weeks, when his doctor believed it could be safely withdrawn, but the same night its reintroduction became urgently necessary for the relief of retention. Now the catheter was retained in the urethra for several months, when again an effort was made to dispense with the instrument by day and wear it only at night, but the stricture rapidly became tighter and so difficult to enter that catheters of a constantly decreasing size were rendered necessary, until in 1863 he found himself in the same condition of obstructive retention as had occurred before the previous operation. Again internal urethrotomy was performed to permit the introduction of a short silver catheter, No. 15, French (Fig. A.), which since then he has worn day and night for twenty-four years.

When removed for infrequent coitus, the catheter was always rein-

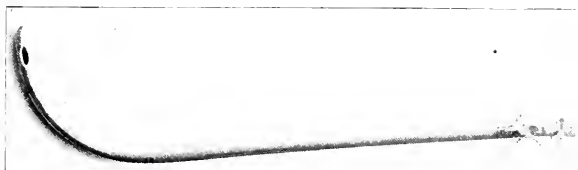
served after fifteen minutes, although with difficulty. During these many years he suffered at intervals quite severe attacks of cystitis, for the relief of which he found weak solutions of carbolic acid used several times a day, afforded him the best relief.

The man was of large frame and weighed one hundred and seventy pounds, but the penis was small and entirely disproportionate to his osseous and muscular development. May the trauma received when eight years old have been the cause of a stunted organ?

The catheter (Fig. A.) is but $5\frac{7}{8}$ -inches long from its eye to the rings which appeared to be the only hindrance to its disappearance in the urethra. A cork, secured by a cord to each of these rings, occluded the catheter until removed at short intervals for urination.

In August, 1897, Dr. Willard Parker referred the patient to me with a view to some radical operation which would dispense altogether with the catheter and obviate recontraction of the stricture. The patient

FIG. A.



had a haggard, distressed expression, he was suffering with an irritable bladder and all the discomforts of cystitis.

The urine was foul and contained a marked trace of albumen, on removing the catheter I could pass No. 16 and 17 French sounds with some difficulty. No 15 French bulbous bougie showed a sharp annular stricture at three and a half inches (this, in his short penis, corresponded to the distal end of the bulbous urethra). The stricture was extremely sensitive but no sign of blood appeared on the shoulder of the bulbous instrument. The urethra, anterior to the stricture, admitted instruments of a 32 French scale.

Endoscopic examination showed a small central aperture in the stricture, the walls of which were a dull grayish-white color.

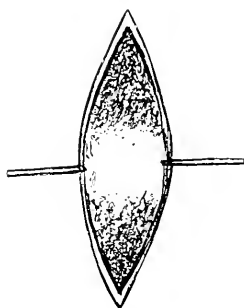
At the Presbyterian Hospital on August 10, 1897, under ether anesthesia a generous perineal incision was made beginning just posterior to the scrotum. The urethral and peri-urethral tissue was thick and very hard. With silk retractors the urethra was held open causing the stricture to assume the form of a pyramidal transverse ridge, the

apex protruding and the base extending deeply into the peri-urethral tissue. (Fig. 1.) Its total removal was evidently essential to any permanent cure.

Rather than a complete excision of nearly an inch of the urethra I substituted a sort of submucous plastic excision by making two shallow transverse cuts on each side of, and parallel with, crest of the stricture (Fig. 2) from each of which a thin flap was laid back for half an inch. The underlying inflammatory tissue was thus exposed and removed from its bed by making longitudinal parallel incisions to its base.

Now the posterior end of each of these sections was successively seized by toothed forceps, and cut out from its bed with pointed curved scissors (Fig. 3). The result was that a considerable depression ex-

FIG. 1.



Urethra retracted,
showing stricture.

FIG. 2.



Lines of flap in-
cisions.

isted, especially at the center where the thickest part of the stricture had been. The flaps were approximated with fine chromicized catgut (Fig. 4) and the floor of this part of the urethra closed with catgut sutures. A No. 34 French rubber drainage catheter was passed to the bladder and retained at a point on the perineum posterior to the plastic excision.

Three days later 30, 32, 33. French sounds were passed from meatus to bladder. The perineal tube was removed at the end of a week.

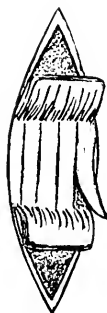
No discomfort or annoying symptoms followed the operation and the patient left hospital at the end of fourteen days passing all urine from the meatus.

Ten months have elapsed since the operation. No. 32 French sound passes as easily as after operation. He says he has not yet outgrown

the agreeable surprise to which he awakens each day without the catheter; and his independence in traveling is delightful, since he can urinate where and when he wishes without fear of surprises. He complains that there is a precipitancy of ejaculation attending coitus which did not formerly exist. The narrowness of the urethra at the point of stricture had in all probability acted as a strong temporary impediment to the outflow of seminal fluid, and the ejaculatory muscles had undergone a compensative hypertrophy rendering them too strong for present duty. I believe the balance of power disturbed by removing the obstruction will in time be restored.

A moderate bacterinuria, so conspicuous a part of his cystitis when first seen, still persists, but as there are no subjective vesical symptoms, I have not yet given this treatment. The first glass of urine passed is very cloudy and the presence of some filmy mucus and pus point to

FIG. 3.



Flaps turned back, exposing scar tissue cuts in parallel strips to be removed by scissors.

FIG. 4.



Coaptation of flaps with fine chromicized catgut.

post-urethral catarrh, as well as a slight degree of localized cystitis. The second glass is turbid only with bacteria as is the case with the third glass.

He at times has lumbar and gluteal discomfort, especially on the right side, which has suggested to him the existence of kidney disease of which his several physicians have for years prepared his mind to anticipate sooner or later as an ascending infection from his long-infected bladder. As this pain was noticed especially after coitus I infer

it is a reflex due to the posterior urethritis and shall treat the condition upon this presumption.

To ascertain facts regarding the state of his kidneys I catheterized¹ the right ureter and submitted this together with urine drawn from the bladder to examination by Dr. F. E. Sondern whose report of the specimens is here given.

SPECIMEN FROM THE RIGHT KIDNEY PER CATHETER.

Amount passed in 24 hours: 3 c.c.	Specimen of: June 15, 1898.
Reaction: Faintly acid.	Color: Amber.
Deposit: Moderate.	Odor: Not offensive.
Character of Deposit: Heavy.	Specific Gravity: 1020 at 15° C.
Albumin: Ferrocyanide Test: Not made.	Westphal's Bal.
Heller's Test: Trace.	Sugar: Fehling's Test: Negative.
Amount Esbach's Test: Trace.	Fermentation Test: Not made.
Bile: Negative.	Phenylhydrazin Test: Not made.
Urea: in 1 c.c.: 0.022 gram. in 24 hours.	Acetone: Not made.
Indican: Not made.	Chlorides: Approx. normal.
Additional Tests: None.	Phosphates: No excess.

MICROSCOPIC EXAMINATION.

Sediment obtained by Centifuge 3 minutes at 2500 revolutions.

Blood: Very small amount.
 Pus: Few cells only.
 Mucus: None.
 Casts: Few hyaline casts only.
 Bacteria: No pathogenic varieties found.
 Epithelium: Several groups of caudate cells probably from pelvis; numerous round cells probably from ureter.
 Cryst. and Amorph. Deposit: None.
 Other Structures: None.

SPECIMEN FROM THE BLADDER PER CATHETER.

Amount passed in 24 hours: 25 c.c.	Specimen of: Same.
Reaction: Acid.	Color: Dark amber.
Deposit: Moderate.	Odor: Not offensive.
Character of Deposit: Heavy.	Specific Gravity: 1020 at 15° C.
Albumin: Ferrocyanide Test: Trace.	Westphal's Bal.
Heller's Test: Trace.	Sugar: Fehling's Test: Negative.
Amount Esbach's Test: Trace.	Fermentation Test: Negative.
Bile: Negative.	Phenylhydrazin Test: Not made.

¹ Brenner's ureter cystoscope.

Urea: in 1 c.c.: 0.03 gram. in 24 hours.	Acetone: Not made.
Indican: Traces,	Chlorides: Normal.
Additional Tests: None.	Phosphates: No excess.

MICROSCOPIC EXAMINATION.

Sediment obtained by Centrifuge 3 minutes at 2500 revolutions.

Blood: Few cells.
Pus: Small amount.
Mucus: Small amount.
Casts: Few hyaline casts only.
Bacteria: Some pyogenic cocci; many non-pathogenic organisms.
Epithelium: Numerous vesical cells.
Cryst. and Amorph. Deposit: Few crystals of uric acid.
Other Structures: None.

REMARKS.

Bladder Specimen.—The presence of a small amount of pus, mucus, and numerous bladder epithelial cells, would indicate some vesical irritation or very moderate catarrh.

The trace of albumin and very few hyaline casts might be accounted for by a moderate hyperemia of the renal parenchyma, secondary to the above—provided the daily excretion of urea, etc., is normal.

No direct evidences of a lesion of the renal pelvis could be made out in this specimen.

Staining shows many non-pathogenic organisms, also several chains of pyogenic cocci.

Tubercle bacilli, elements of pseudoplasm, or evidences of stone could not be found.

Specimens from the Right Kidney.—The presence of few pus-cells and several groups of epithelium probably from the renal pelvis would not be sufficient to indicate a pyelitis, but might mean some irritation or slight catarrh of the pelvis.

The few hyaline casts as above might easily be accounted for by a slight secondary renal hyperemia.

The difference between the two specimens in gravity and relative amount of urea may be accounted for by the excretion from the other kidney, or may be due to some nerve influence.

Probably a quantitative examination of a 24-hour regular specimen would allow a more definite conclusion as to the significance of the casts. In consideration of the gravity, relative amount of urea, etc., I believe they are due to a secondary hyperemia as stated. If due to a quiescent chronic nephritis it would be reasonable to expect a low gravity and low relative amount of urea.

Dr. G. A. Tuttle's bacteriological examination of direct cultures of the two urines is here appended. Plate-cultures from two tubes planted directly with urine drawn by catheter from the bladder gave pure growths of bacillus coli communis.

Plate-cultures from two tubes planted directly with urine drawn

by catheter from the right kidney gave growths of bacillus coli communis, and micrococcus ureæ. Just the reverse of what might have been expected and the inference of an error in labelling the specimen by one of us is a fair one.

Since this patient was presented before the section of genito-urinary surgery, seven months ago, time and endoscopic treatment of the prostatic urethra have cured the abnormal sexual manifestations and the urine is almost clear.

14 East 58th street.

ACUTE CIRCUMSCRIBED EDEMA ASSOCIATED WITH HEMOGLOBINURIA.

BY GROVER WILLIAM WENDE, M.D.,

Clinical Professor of Dermatology, University of Buffalo.

THE case here presented, associated as it is with hemoglobinuria, possesses such exceptional features as to make it worthy of more than a cursory examination.

On the 11th of December, 1898, Mr. O'B., while attending church, suddenly experienced a consciousness of tension in the integument of the dorsal surface of the right hand. This almost instantaneously extended to the index-finger; in closing the hand the impression of immobility was produced, the fingers being apparently case-hardened and palsied. In searching for an explanation of this stiff and benumbed feeling, he discovered a lump of indurated tissue, about the size of a walnut, situated beneath the skin. This occupied the center of the affected area and was freely movable. Fearing that he had sustained some unusual injury, and, perhaps, was suffering from blood-poisoning, he hurried to my office. The following summary presents a brief history of the case:

Mr. O'B., aged 64; born in Ireland; bath-house keeper by occupation; general health excellent; physique robust; muscles well developed and well preserved; was never confined to bed or compelled to take remedies for any ailment; had never previously suffered from a like condition; members of his family reported to be generally healthy, and not to have been subject to any approximate or allied disease; dietary habits and mode of living always methodical and plain; bowels regular, and no apparent symptoms of any gastro-intestinal disturb-

ance. The only points to be regarded as salient in considering the etiology of the disease were the circumstances that he never wore an overcoat, which is somewhat remarkable in a climate like Buffalo, and that it was his custom when working in an exceedingly hot bath-room, and while in a state of profuse perspiration, to "cool off" quickly by getting into a draught at an open door or window, or by going out into the air.

The attack was so sudden and the change in the appearance of his hand was so marked, that he was not only surprised but alarmed, and little wonder. Just fifteen minutes elapsed from the discovery of the affection to the moment that he arrived at my office for consultation. Upon examination I found nothing unusual except the swelling. The pulse and temperature were practically normal, the respiration and heart-action were good, and no signs of indigestion were detected. However, the tumefaction, which was located on the back of the right hand, was a pronounced and well-defined lesion, with an irregular outline, its longest diameter measuring seven inches, while four inches indicated its shortest width. These dimensions remained relatively the same until the process subsided. The height of the swelling was, at first, about one inch above the healthy contiguous skin, but continued to rise until a maximum of two inches was attained—as represented in the photograph. It did not pit on pressure, but was elastic and imparted to the bimanual touch an impression like that following fluctuation. In color it resembled the natural skin until the point of culmination was reached, when the veins became dilated, producing a bluish tint, which disappeared synchronously with the gradual subsidence of the swelling.

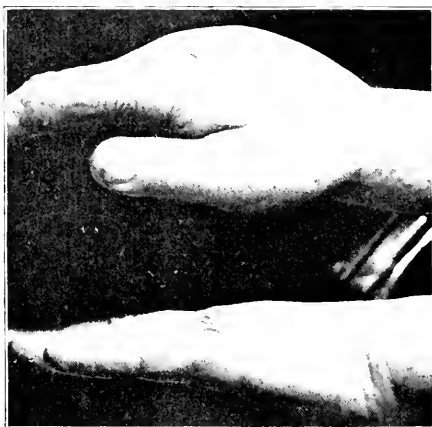
Barring the numbness and stiffness, upon the closing of the hand, all subjective symptoms were wanting.

On the following morning the tumor had somewhat diminished, yet ten days were required before it entirely disappeared, during which time a remission occurred, involving the whole surface of the initial lesion. This process was, however, of short duration, and lacked the activity which it possessed at first, attaining only half the original size. Simultaneously with the repetition there appeared a similar and well-developed swelling, about the size of an English walnut, upon the anterior surface of the forearm; also a very small one upon the face. These two different manifestations resembled in color the normal skin and afforded a sensation of firmness upon palpation. The interval between the advent of the initial swelling on the hand and of the second upon the forearm was forty-eight hours, and between it and the one

upon the face was seventy-two hours. No others had made their appearance up to this time, when the present paper was written.

An examination of the urine gave results more or less significant. It had a specific gravity of 1016 and possessed an acid reaction. To the naked eye it appeared to have an admixture of blood, but differing in many respects from the ordinary blood-urine, especially in that it was much darker, indeed, almost black. After standing for some hours, the sediment was only moderate in amount, while the supernatant fluid was brownish-red. Heat having been applied, the presence of albumin was shown in great quantity, and the coagulation produced could well

FIG. 1.



be likened to that of serum albumin. After filtration, the urine was again examined. This time both Heller's and the ferrocyanide tests for albumin were used, which was still revealed by the copious precipitate thrown down.

Pathologically, there were no other substances present to indicate any abnormal condition.

A microscopic examination of the sediment acquired by the use of a centrifuge apparatus for five minutes showed a vast quantity of dark, granular matter, mixed with an amorphous debris. Upon closer observation, it was ascertained that this material had entangled with it epithelial cells of various forms—especially those coming from the

bladder—and a few uric-acid crystals. It was absolutely free from red blood-corpuscles and pus-cells, and bacteriological examination demonstrated the absence of all bacteria. The spectroscope revealed the absorption bands of oxyhemoglobin. A subsequent test, made twenty-four hours later, gave conclusive evidence that the hemoglobin had materially diminished, and that the urine had become decidedly clearer. By Heller's test it was shown that the quantity of albumin was now very small. Four days later, all tests demonstrated that the urine was practically normal.

On the day following the attack, the blood appeared to exhibit a diminution in its hemoglobin and a decrease in its specific gravity. A count of the red corpuscles showed that the elements were greatly decreased in number, aggregating only about 3,520,000; while in four days more they were increased to 4,450,000. Ten days later their number was again apparently normal. As a result of these observations there was no noticeable change in the number of white corpuscles; these always numbering 12,000. While making the differential count, it was noticed that the sizes of the various cells were so slight as not to be considered beyond physiological limits.

From what has been said, it is observed that the etiology of this interesting malady, with its sudden onset, is obscure. There is absolutely nothing by which we can determine the exciting cause—a cause that operated to produce almost simultaneously this remarkable pathological combination, namely, localized cutaneous edema, hemoglobinuria, and a marked oligocythemia.

However, numerous cases of hemoglobinuria have been reported by many authorities. Most of them regard exposure to cold as a frequent exciting cause, although in these reports no mention is made of any accompanying manifestation of the skin resembling the one under consideration.

In the case just described, undue exposure when overheated, together with abundant perspiration, are the only suggestions received from its history pointing to etiological factors. A vascular spasm, brought about by a disturbance of the central or peripheral-vasomotor apparatus in this manner, may possibly explain the angioneurotic edema, but just how it gave rise to the destruction of red blood-corpuscles and the albuminuria can only be conjectured.

There are only two cases which I have found recorded in medical literature of acute circumscribed edema associated with hemoglobinuria. One of these is reported by L. Roques (*Soc. Med. des Hôp.*, Feb. 19, 1898), in which cold was the etiological factor. The combination of the two affections could be produced when desired by the application

of ice or ether to the surface of the skin. Edema would then appear at the point of application. A second case of acute circumscribed edema, appearing in a five-year-old child, with paroxysmal hemoglobinuria, was reported by Dr. Max Joseph, in a dissertation presented before the Medical Congress which recently convened at Prague.

Correspondence.

EXTRAGENITAL SYPHILIS.

EDITOR JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES:

I have a case of syphilis to report contracted through pipe-smoking. The patient, a man of 65, loaned his pipe to a friend with whom he was traveling, the two using it turn and turn about for half a day. The friend was suffering from secondary disease exhibited in loss of hair and mucous patches about the anus, in the mouth, and on the lips and scrotum. After a lapse of 28 days, a chancre appeared on the lower lip, the lymph-nodes at the angle of the jaw became indurated and general syphilis followed.

The mucous membrane of the patient's lips was thin and cracked easily but so far as could be definitely determined they showed no lesion at the time of infection. No scars could be found on the genitals, the man's family is perfectly healthy and no thought of unnatural practices could be entertained for a moment.

G. STERLING JOHNSON, M.D.

Johannesburg, S. A. R., February 2, 1899.

Ichthyol in Congestive Conditions.—MALCOLM MORRIS (*Amer. Med. Surg. Bulletin*, 1898) says that ichthyol, like arsenic, causes increase of red corpuscles. By its action on nerve-centers, it controls vasomotor reflexes; hence its use in erythema and other congestions, such as erythematous lupus, rosacea, and urticaria. It is given in 5-grain doses night and morning on an empty stomach, increasing the dose until the effect is produced. Quinin acts well as an adjuvant.

Mercurial Ointment Internally in Syphilis.—SILBERSTEIN (*Therap. Monats.*, xii., p. 397, 1898) thinks the metal is better absorbed in this form. His prescription is: Mercurial ointment, adeps lane base, 45 grams; licorice-root powdered, 5 grams; glycerin, 5 drops; mucilage of acacia, enough to mass. Make 60 pills.

Society Transactions.

NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SEVENTY-FOURTH REGULAR MEETING, HELD ON DECEMBER 20, 1898.

DANIEL LEWIS, M.D., *President, in the Chair.*

A Case of Double Chancre.—Presented by DR. P. A. MORROW.

The patient was a young man with two chancres, one on the upper and one on the lower lip: the lower chancre was directly underneath the upper. The submaxillary and sublingual glands were enlarged. Dr. Morrow said the question arose whether the case was one of double inoculation or auto-infection.

DR. C. W. ALLEN expressed the opinion that the chancre on the lower lip was due to auto-infection from contact with the one on the upper lip. The speaker said he had seen this occur about the genitals. He had also seen mucous patches on the tongue produce lesions on the hard palate at the point of contact when the mouth is closed.

A Case of Verruca Vulgaris of Unusual Localization.—Presented by DR. MORROW

The case was interesting on account of the localization of the lesions, which first developed about a year ago on the nail-border of the middle finger of the right hand. The outer fingers were gradually invaded, and about six months ago the fingers of the left hand became involved. The warts are arranged in linear series around the unguinal border of each nail. At certain points they are coherent at their bases and massed together. The patient's occupation is that of repairing and recharging electrical batteries, but some of the warts appeared before he engaged in that work. Dr. Morrow said the gradual extension of the lesions in this case tended to corroborate the view that they were of microbic origin.

DR. ALLEN said he had seen a case in which a number of the nails were surrounded by warts. The speaker said he was inclined to believe that warts were auto-inoculable. From a so-called seed-wart a paronychia may become inoculated so that a number of fingers in succession present series of new warts about the nail-borders. As regards treatment, Dr. Allen said he had obtained good results with a mixture of acetic acid, sulphur, and glycerin, kept constantly applied.

DR. E. B. BRONSON said that some years ago he had under his care a lady who developed a crop of warts about the nails, most of the fingers of both hands being involved. The patient attributed the occurrence of the warts to manicuring the nails. Dr. Bronson said he had repeatedly removed the lesions, made numerous unsuccessful attempts at curette, and by various escharotics, but they always promptly returned. Finally, they disappeared not to return apparently in consequence of one or two applications of nitrate of silver made by the patient herself. Though apparently an effect it was probably an accidental coincidence.

DR. MORROW, in closing, said he had never before seen a case where the warts were distributed in a linear series along the borders of the nails, as in this instance. As regards the treatment of these lesions, the speaker said it was well known that they sometimes disappeared rapidly under comparatively simple remedies. In fact, their extraordinary disappearance in some instances makes them a very interesting study. In a number of cases coming under his observation the warts have promptly disappeared after the administration of small doses of magnesium sulphate (10 grains, t. i. d.), the patients having been positively assured beforehand that the medicine would cure them. The magnesium sulphate probably has no specific curative effect upon the warts, so we have here an example of a structural lesion which was caused to disappear under the influence of the mind. Another illustration of the psychic cure of warts is found among the Southern negroes who "conjure" them away. In this case he had employed a well-known remedy for warts, *Thuja occidentalis*, given in 10- to 15-drop doses, three times daily. The speaker said he had never known this drug to produce ill effects, excepting possibly a slight headache.

DR. A. R. ROBINSON referred to the case of a woman with an extensive eruption of warts, for the cure of which he had prescribed *Thuja*, in 10- to 15-drop doses, three times daily. The patient developed an acute parenchymatous nephritis, which became chronic and ended fatally. The warts were not affected by the treatment.

A Case of Possible Mixed Infection, Syphilis and Tuberculosis.—

Presented by DR. MORROW.

The patient was a young physician, who, early in 1898, developed a lesion on the middle finger of the left hand which proved to be a chancre. On the 10th of January of that year the patient had performed an autopsy on the body of a patient who had been tuberculous and possibly syphilitic, and the sore on the finger was first attributed to the infection from the cadaver. Afterwards, however, the patient recalled that about a month previous to that time he had on one or two occasions examined a syphilitic woman. When Dr. Morrow first saw the patient in March, 1898, he had, in addition to the lesion on the finger, general glandular enlargement and a sore throat. The lesion on the finger proved very obstinate to treatment, the terminal phalanx was exposed and became spongy with cribriform openings, through which a probe could be readily passed; the patient developed a distressing cough, with an afternoon-rise of temperature and during the summer he lost about thirty pounds in weight. He was sent to his home in the Adirondacks, and during his stay there he was advised to suspend syphilitic treatment, and take instead, cod-liver oil. Under that treatment his general health improved and he gained about twenty-four pounds in weight. The lesion on the finger still persists and has caused the terminal phalanx of the finger to disappear, leaving a discharging sinus. Recently, the patient's nose has become red, swollen, and inflamed, with superficial ulcerations. Dr. Morrow said the question arose whether this was a case of pure syphilis or a combination of syphilis with tuberculosis.

DR. H. G. KLOTZ said that he had no reason to deny that the tuberculous element was present in the case shown by Dr. Morrow; still syphilis alone could produce the conditions of cachexia, loss of weight, night-sweats, etc., met with in this instance, especially when mercury had been persistently employed. In some stages of syphilis the temporary omission of specific treatment seems to exert a most beneficial effect.

DR. SHERWELL, who had treated the patient's throat at Dr. Morrow's request in the Summer of 1898, said the sore throat had improved rapidly under treatment, which consisted in great part of local applications of a weak solution of the acid nitrate of mercury. Dr. Sherwell said that at the time he regarded the case as one of syphilis pure and simple, in an interne who was suffering from hospitalism and consequent anemia.

DR. MORROW, in closing, said the most interesting feature of the case to him was the extraordinary persistence of the initial lesion, and the extensive destructive process which had taken place. The speaker said he had never before seen a case of chancre of the finger which resulted in involvement of the bone, with destruction and exfoliation of the terminal phalanx. Some time ago he had suggested that this phalanx be removed surgically, but this was not done and the bone has since disappeared. In spite of this, the inflammatory process still persists.

Two Cases of Leucoplasia.—Presented by DR. S. SHERWELL.

The patients were males, aged, respectively, 44 and 57 years, who had been operated on by Dr. Sherwell, one, fifteen months, and the other one year previously. The treatment which Dr. Sherwell said had been employed by him with equally good results in many cases, consisted of the following: After stuffing the mouth and protecting the adjacent parts with absorbent cotton, he applied to the patches of leucoplasia the undiluted liq. hydrargyri nitratis (Squibb's 50-per-cent. solution). The application was repeated two or three times at intervals, and allowed to remain cooking the tissues, as it were, from fifteen to twenty minutes. It was then thoroughly neutralized with bicarbonate of soda, until all chance of danger from the escharotic effects of the caustic was removed. The cotton was then removed, and the patients were instructed to gargle for a few minutes with the soda solution. There was no further treatment, excepting, perhaps, the use of cold cream for soothing and protective purposes, and to diminish the sensibility of the parts. Absolute recovery took place within a fortnight or three weeks. No ptyalism resulted.

In the first case shown by Dr. Sherwell, an absolute and complete cure resulted from a single treatment, the mucous membrane being apparently restored to a perfectly healthy condition. This case was a very aggravated one, the patches of leucoplasia involving the lower lip and angles of the mouth; these regions were covered with a scab, hard and silvery in appearance, like the nacre of an oyster-shell, or a coat of plaster of Paris.

In the second case there were slight evidences of return of the disease in some parts; the lips were free, but in the deeper buccal membranes slight traces of leucoplasia were yet visible, owing perhaps to the fact that less active treatment had been employed in this case than in the other.

In conclusion, Dr. Sherwell said he had shown these two cases in order to demonstrate the value of this method of treatment, and its results. The speaker said that on previous occasions, when he had referred to it, several members of the society had expressed themselves as rather doubtful of its value.

DR. E. B. BRONSON thought the results were remarkable, especially in a disease where we have been taught to believe that the more the lesions are irritated, the more they spread.

DR. J. A. FORDYCE said he had had employed the acid nitrate of mercury in one case of leucoplasia of the lip, but in a less energetic manner than that described by Dr. Sherwell; he had simply rubbed the acid over the lesions with

a piece of cotton, repeating the process a number of times without producing any effect.

DR. ALLEN said that he also had employed this method of treatment to a limited extent, and obtained very satisfactory results. In one case which he had shown to the society—that of an old physician with a lesion on the lip and cheek—a complete and apparently permanent cure had been obtained by the use of this remedy. In lesions of this character involving the tongue Dr. Allen said he had hitherto been rather timid about trying this method, for fear that the irritation might lead to the production of epithelioma. The speaker asked Dr. Sherwell whether he thought there were not grounds for such fears?

DR. SHERWELL replied that he was accustomed to apply the acid pretty thoroughly, taking care to protect the adjacent parts as well as possible by means of cotton. The speaker said he had treated lesions of the tongue with this remedy, but not to the same extent as lesions on the lips and buccal mucous membrane.

A Case of Urticaria Pigmentosa.—Presented by DR. A. R. ROBINSON.

The patient was an unmarried man, 23 years old, who states that this eruption first made its appearance about seven years ago. Once during this period the lesions disappeared for nearly a year. At times there is itching, especially marked on getting up in the morning. In hot weather the itching is sometimes sufficiently severe to keep him awake at night. His appetite is capricious; the tongue is furred and brownish in color; his bowels are constipated. The lesions are distributed in great numbers over the face and body. The more recent ones in size and color resemble (at a distance) a papular syphilide; the other lesions are pigmented. Irritation of the surface with a blunt instrument causes all the lesions to become more prominent, and the entire skin becomes erythematous, with severe pruritus. An examination of the blood revealed no abnormality. The urine contains neither albumen nor sugar, but many oxalate-of-lime crystals.

DR. ALLEN said that in this case the nodules did not come out as prominently as in the case which he had presented to the society some time ago. In that case, as soon as the patient removed his clothing, the pruritus would become very severe, and large wheals would develop not only in the pigmented areas but between them.

DR. ROBINSON, in closing, said he thought the case, which was undoubtedly one of urticaria pigmentosa, was particularly interesting on account of the age at which the eruption had appeared. Crocker in his work makes the statement that it invariably appears in childhood; in the case under discussion the eruption did not appear until the person was sixteen years old. It follows that genuine urticaria pigmentosa sometimes commences later in life than the period of childhood.

A Case of Lupoid (?) Acne.—Presented by DR. C. W. ALLEN.

The patient was a young lady who first came under his observation six weeks ago with rosacea of the face. The lesions, which were few in number, but highly inflammatory in character, were situated on the nose and the adjacent skin. There were a number of tubercles which contained serum and blood, but no pus, and which were rendered extremely inflammatory by even slight manipulation. Dr. Allen said the case had proven very obstinate to treatment, and some of the lesions had taken on a lupoid appearance. The patient gives a history of having had a similar eruption several years ago, which disappeared after a lengthy

course of treatment. He presented the patient to see if it was thought that the term lupoid might be appropriately used.

DR. JOHNSTON said he did not concur in the diagnosis, as he saw nothing lupoid in the appearance of the lesions. He regarded it as a simple case of acne rosacea.

DR. KLOTZ regarded the case as an aggravated one of acne.

DR. H. H. WHITEHOUSE also regarded the case as an aggravated acne, with a seborrheal element.

DR. ROBINSON said the case was probably originally a seborrhea, the acne developing later.

DR. BRONSON regarded the case as one of rosacea succeeding an acne, with characteristic vascular changes in the skin. The patient's tongue showed evidence of impaired digestion.

DR. ALLEN said that with the exception of slight constipation, the patient's general health had been excellent. She did not complain of dyspepsia or menstrual disturbances. The appearance of the lesions had improved since the patient's last visit.

A Case of Chancre of the Nipple.—Presented by DR. ALLEN.

The patient was a young unmarried woman with a lesion of the left nipple, without history of trauma or acknowledged exposure, which Dr. Allen said he had at first been inclined to regard it as a chancroid, from the nature of the ulceration, and as it was very soft in character, but had since decided on its syphilitic nature. The lesion had appeared as a small pimple nine weeks ago. The axillary glands are now greatly swollen, and an eruption had within twenty-four hours made its appearance about the affected nipple upon the skin-surface of the breast, but not elsewhere.

DR. KLOTZ said he thought the lesion was a chancre, with a beginning preliminary localized syphilide surrounding the same. The induration about the lesion was fairly well marked.

DR. SHERWELL said he was not fully convinced that the lesion was a chancre. The eruption about the nipple did not look like a syphilide, and the induration was very slight. The speaker said he would be inclined to hold the diagnosis in abeyance until a more extensive eruption made its appearance. In several chancres of the nipple which he had observed, the induration was very well marked.

DR. BRONSON said he was disposed to regard the case as one of syphilis. The appearances of the nipple and the circumscribed area of hardness surrounding it were quite characteristic.

DR. FORDYCE also regarded the lesion as a chancre, and he agreed with Dr. Klotz that the eruption around the nipple was a characteristic preliminary of a generalized outbreak. He had noticed a similar phenomenon in chancres of the face.

A Case of Pityriasis Rosea in an Infant.—Presented by DR. E. B. BRONSON.

The patient was a child, 2½-years old, with a generalized eruption of pityriasis rosea. The affection had lasted a week or ten days, and was very clearly marked. No other member of the family was known to have had it. The age of the patient was regarded as exceptional for this disease.

DR. JACKSON said he concurred in the diagnosis. He had never before seen

the disease in so young a child, and would like to know what had been the experience of the other gentlemen.

DR. SHERWELL said he had never before seen pityriasis rosea in such a young subject.

DR. ALLEN said he had seen one case in a child of four years; another in a child of nine years during the past year.

DR. JOHNSTON said he had seen a case of pityriasis rosea during the past year in a boy of five years. When the mother brought the child she stated that he had trouble with his throat all summer, and an inspection of the throat showed an eruption identical with that on the skin, even to the scaling, covering the posterior pharynx, the roof of the mouth, and the pillars of the fauces.

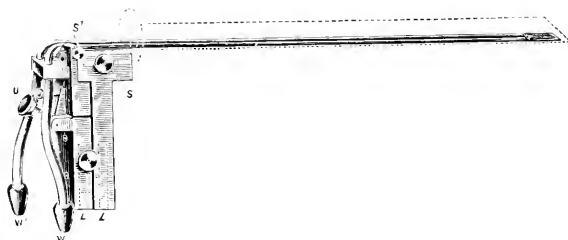
(To be Continued.)

NEW YORK ACADEMY OF MEDICINE.

GENITO-URINARY SECTION, JANUARY 10, 1899.

New Genito-Urinary Instruments.—Presented by DR. FERD. C. VALENTINE.

He said it is undeniable that eminently good urethroscopic work and intra-urethral operations are done with reflected and projected illumination, such as are furnished by the Otis and Fenwick urethroscopes. It is equally true that more intense illumination is obtained by placing the light in almost immediate



KOLLMANN'S MODIFICATION OF OBERLAENDER'S URETHROSCOPE.

S Screw for fastening right leg of illuminating wire.

S Screw for attachment of light-bearer to tube.

U Modified current-breaker.

W *W* Nipples for attachment of tubes that carry water around the light to keep instrument cool.

L *L* Bars into which conducting cables from light battery are inserted.

apposition to the region to be examined, the glands and infiltrates to be incised or treated by electrolysis. Dr. Valentine said he was convinced, after careful tests of all the instruments in use, that these ends could not be attained as easily or as well with any, as with the Nitze-Oberlaender urethroscope. An objection

to this instrument, and a valid one it must be conceded, is the difficulty that presents when it becomes necessary to replace the minute platinum wire on whose incandescence the illumination depends. The exceeding smallness of this proved a great annoyance, especially when required in a hurry. This difficulty is overcome by Kollmann's modified light-carrier, which Dr. Valentine said he would take pleasure in showing.

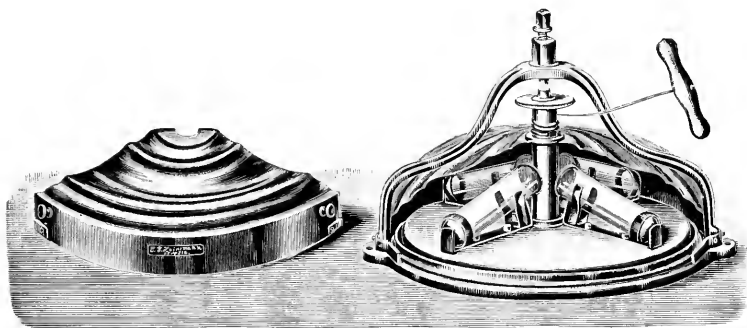
In general construction it does not differ from the present Oberlaender pattern of light-carrier. The smallness of the wire is overcome in prolonging its

KOLLMANN'S LIGHT FOR URETHROSCOPE.

The thicker and longer part is the insulated copper wire attachment to the thinner platinum-wire light.

right leg by an insulated copper wire which passes through the light-carrier far more easily than the very little wires formerly used could be inserted into its end. This lengthened leg on reaching the manual end of the urethroscope is fastened there by means of a screw (shown as *S* in the above illustration). The insulation need not be scraped from the wire, as the screw which fastens it also penetrates the covering of the wire and makes the connection.

When the copper wire is so fastened, the other end of the platinum light is inserted into the opposite distal orifice, which is then quite easily accomplished.



Another modification which this instrument brings is the current-breaker (shown as *U* in the cut), which certainly is more easily manageable than the slide formerly used. Dr. Valentine said he could not, however, attribute much value to this attachment. It is offered as a means of avoiding alarm to nervous patients, who might fear the insertion of an incandescent light into the urethra. Inasmuch as a nervous individual will watch the operator's every movement he cannot fail to see him testing the light, before he inserts it. He knows, therefore, that it will be turned on after insertion. He consequently is more afraid of it than he otherwise would be. To overcome any apprehension that the patient

may have or being burned, Dr. Valentine said he always turned on the light in his presence, passed it over the back of his own hand until a few hairs were burned off. When the patient asked him, as a case at first examination invariably did, whether he was not burning himself, he demonstrated on the patient's hand that the light which burned the hairs did not even warm the skin. No patient then dreaded the introduction of the light. Still, as the current-breaker did not encumber the instrument, there was no objection to its presence.

DR. VALENTINE also showed **Wossidlo's Centrifuge**.

He said that last year he had had the honor of showing, before this Section, Wossidlo's centrifuge, which has the following characteristics: It can be used even on the microscope table, to which it imparts no vibration. It is noiseless and runs about 15 minutes with one winding with sufficient velocity to sediment urine, blood, sputum, etc. As it does not require to be screwed fast, it can be used anywhere and simply carried to another place when not required. As shown the cover of the present modification is in halves and a heavy iron bridge attached to the base, makes drawing the top-cord a far easier matter than it could be in the first model.

DR. VALENTINE then demonstrated:



KOLLMANN'S URETHROTOME.

B Elastic bougie, with screw-head, which can be substituted for—

M Detachable nut.

K *K'* *K''* Exchangeable bulbs, from 18 to 30 F.

M Projecting knife (exposed).

K Bulb attached.

G *G* Bar to protect knife.

S Screw to fasten knife.

U Clamp.

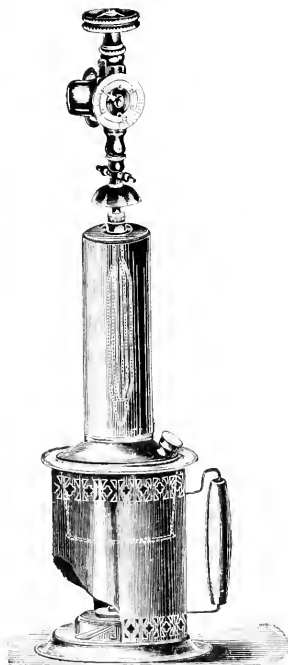
The speaker said that Kollmann's new urethrotome seemed to him especially serviceable in those resilient strictures in which after attaining a certain amount of dilatation the strictured urethra refused to recover anything like normal caliber.

In construction Kollmann's somewhat resembles the Chetwood urethrotome.

It can be easily taken apart for cleansing and sterilization. On loosening the screw *S* the posterior part is turned to the left, whence it gyrates on a pivot by which it is attached to the handle. The staff which guides the knife can be withdrawn by the bars *G* to which it is attached. The knife, with its long thin handle, is then drawn out of its guiding-staff. The nut *M* is easily screwed from the tip of the instrument and the bulb *K* removed.

The instrument can almost as easily be put together again. When a devious stricture has distorted the lumen of the urethra, the nut *M* can be substituted by the soft filiform guide *R*, to facilitate its entrance.

DR. VALENTINE said that Kollmann's steam sterilizer for irrigating dilators required no detailed description. A larger form has a removable cover, to which



hooks are attached for the suspension of catheters, dilator-covers, etc.

A New Instrument for Urethral Irrigation.—Presented by DR. SWINBURNE.

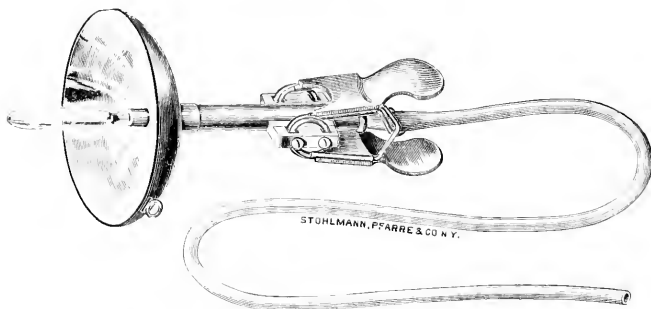
This is a combination of the irrigator which he formerly used and a modification of the one which Dr. Valentine had made, which was certainly very ingenious and useful, but where large numbers of patients were being irrigated, the ring which closed the clamp in Dr. Valentine's instrument was difficult to work and was apt to blister the thumb of the operator, the metal tube of the instrument was made shorter than his and a clamp as shown in the illustration was fastened to it in such a manner that it can be readily worked by the hand.

Gonorrheal Prostatitis.—DR. R. H. GREENE read a paper on this subject. The work on which the paper was based was published in this Journal, January, 1899, page 27, to which he has added the bibliography.

DISCUSSION.

DR. SAMUEL ALEXANDER said he did not think he had anything to say and that he would much rather not say anything at the present time on this subject as it had been presented. He had listened to the paper with a great deal of interest on account of the literature which had been alluded to and which was valuable. He did not think Dr. Greene expected them to take the conclusions which he had put forward in simply a problematical and speculative way as final and that it was not, therefore, fair to discuss the question as if those were the matured conclusions that Dr. Greene held. There were certain points which Dr. Greene had brought out about which he thought we might say something because the speaker thought his paper had been very interesting on a subject which frequently is the source of very great error.

In regard to the investigations which can be carried on in a Dispensary practice or in a Hospital practice as to the size of the prostate entirely by rectal examination, Dr. Alexander said he did not think that the conclusions reached were going to give us any tangible idea in regard to whether the prostate in a given



individual was of normal size or not. He thought any one who investigated sufficiently would very soon convince himself that moderate enlargement of the prostate, what one would call moderate enlargement of the prostate if they started with the determinate ideal as usually stated in works on anatomy, they would get a moderate enlargement and not have any disease whatever. He thought the prostate so far as its anatomical shape and size was concerned was perhaps the most variable organ in the body and that a rectal examination was utterly unreliable in telling whether the prostate was enlarged or not. A prostate which might feel very small might be enlarged. He had an example that day brought before the Clinic of a man who had an overflow of urine and with only about 2 oz. of residual urine and clear urine at that. Examination by rectum demonstrated a normal prostate. There was difference in either side and the notch between the two lobes was perfectly well marked. This is usually said to be obliterated in enlargement of the prostate, and yet the introduction of the searcher into the bladder showed a very remarkable intra-vesical growth, and yet from rectal examination it could not be told whether the prostate was enlarged or not, and so it was in inflammatory conditions. He thought one

would often be deceived. They would have a prostate which seemed very full and soft, in which a man had prostatic urethritis, and one would think the prostate inflamed or congested, and yet that was the normal size, and, therefore, he thought rectal examination very uncertain in regard to giving any information as to the relative size, and that we ought to go further than that when we came to study inflammatory conditions to study them more than by rectal examinations. Of course Dr. Greene had done more than that in examining the secretion. That of course was of value, but at the same time he did not think Dr. Greene had given in his paper statistics sufficient in regard to what the secretion was that was obtained from that examination to enable one to say as to whether inflammation and enlargement in any case were coincident or whether one did not have a normal-sized prostate with inflammatory secretion or a prostate supposed to be normal, and on the other hand had a prostate that felt to be enlarged without any secretion.

The question in regard to the permanence of inflammation, which Dr. Greene suggested, the speaker thought needed a word. He thought it was more in the implication than in any positive statement made. He thought the impression one got from what Dr. Greene said was that gonorrheal inflammation of the prostate might possibly be the starting point of so-called hypertrophy or enlargement of the prostate, and he did not think we could, with our present knowledge or without more knowledge than we had now, accept that for a moment. He thought that the trouble had been in regard to this question of inflammation in relation to enlarged prostate that men had taken museum specimens and cases of advanced prostatic disease, where they had prolonged inflammation, and having found inflammatory changes in the prostate had supposed those were primary changes and that the increase in fibrous tissue resulting from that inflammation was a primary process. He did not believe that could be upheld when the subject was thoroughly studied because the earlier you took so-called hypertrophy of the prostate the more glandular you found it and the more you found that the change in the glandular tissue was not a primary change, and although you did have inflammatory changes which were secondary, he did not believe that it could be successfully defended that inflammation of the prostate was the result of gonorrhea or that posterior urethritis had any causation at all in enlarged prostate.

DR. ALEXANDER said that his few desultory remarks were made more for the sake of expressing his appreciation of Dr. Greene's paper than because they had any very close connection with the discussion of the subject, and the reason he did not think he could discuss Dr. Greene's paper was because he did not think Dr. Greene had made perfectly clear exactly what he believed in relation to this thing. He thought he had made a presentation of facts with certain speculations which Dr. Greene was not yet ready to state in a positive way.

DR. BANGS said that some time ago he came to the conclusion that for the present he would have nothing to say in the public meetings in regard to the great subject of the prostate; but, following the example of his friend, Dr. Alexander, in his very evident appreciation of Dr. Greene's effort to instruct the members of the Section, he would break through his rule. He said that he was striving to learn. He was not only trying to learn from his own clinical experience but from the observations of his friends. He *had* learned a great deal lately, not only from reading but from the recent demonstration of Dr. Alexander and from papers such as the one of Dr. Greene's and of others; but he was not satisfied. There were too many conditions that were not explained to him. The speaker asked to be permitted to define a little by saying he had had contradictory ex-

periences. For example, as bearing upon the gonorrheal origin of the "enlarged" prostate, which he did not believe in, he examined a patient whom he had known for many years, who had gonorrhea 30 years ago, only one attack. It was increased in severity by his duties during the Civil War, and was rather protracted. In the meantime he married. He had children, now grown to adult life. There was not the slightest history of infection in the wife, as the speaker knew to his personal knowledge. He examined him 30 years after that attack of gonorrhea and he pressed from his prostate some of the fluid which Dr. Greene had told the Section of and sent it to a laboratory. The laboratory reported to him that unmistakable gonococci were present in that discharge from the prostate. Then, the speaker said, he had another friend whom he had known quite as long as the other. This friend had never had gonorrhea. The speaker would certainly have known it if he had for he was a man who would not lie to him. There was nothing at all suspicious about the man's condition. He had a little congestion of the prostate following hard bicycling, associated with some marital sexual excitement of the most innocent kind, which produced a little disturbance of his prostate, a little scalding on urination. He expressed from his prostate the usual fluid and sent it to the same laboratory and they reported to him the presence of unmistakable gonococci.

(To be Continued)

Editorial Notes.

FOURTH INTERNATIONAL CONGRESS OF DERMATOLOGY AND SYPHILIS. PARIS, 1900.

REGULATIONS.

1. The IVth International Congress of Dermatology and Syphilis will take place in Paris from the 2nd to the 9th of August, 1900.

2. The meetings will be held in the Hospital St. Louis from 8 A.M. to 1 P.M. daily.

3. All duly qualified medical men, French and foreign, approved by the Executive Council, who shall have enrolled themselves by June 1, 1900, and paid the fee for membership, shall be Members of Congress.

The fee for membership shall be 25 francs (\$5.00), and shall entitle members to the volume of "Transactions."

Tickets of membership will be distributed in the rooms of the Congress, on presentation of the receipt for subscription fee.

Subscriptions may be addressed either to the Secretary-General, or to one of the foreign secretaries.

4. At the first meeting, the officers of the Congress will be elected and the Committee of Organization will transfer their powers to the new Executive Council. Members of the Committee of Organization are eligible for election to the Executive Council.

5. The meetings of Congress shall be public

6. Members may express themselves in the language with which they are most familiar, but English, French, and German are the languages to be preferred. A summary of any argument advanced shall be given by one of the secretaries in either of these languages when possible. Communications from the Committee and Executive Council shall be made in French and shall, if necessary, be immediately translated into English and German.

7. The program of the proceedings shall be prepared beforehand by the Committee, printed before the opening of the Congress, and distributed to the members with their tickets of membership.

8. Clinical demonstrations will constitute an important part of each meeting.

9. The subjects for discussion shall be of two orders, those selected by the Committee and those chosen by individual members of the Congress.

Each of the subjects selected by the Committee shall be introduced by members of the Congress chosen beforehand, whose reports shall be printed and distributed before the opening of the Congress.

Members contributing papers on other subjects must give notice to the Secretary-General before June 1, 1900. Such papers must not have been published or read before any society before the opening of the Congress.

No paper may last more than a quarter of an hour and in the discussions no member may speak for more than ten minutes, without special permission from the President after his taking the opinion of the meeting.

Microscopes and a projection lantern will be placed at the disposal of members who may require them to illustrate their papers.

10. Manuscripts of all papers and of all remarks in debates must be left with the Secretary-General before the end of each meeting.

11. The Executive Committee shall decide as to the entire or partial publication of papers in the transactions of the Congress.

The debates will be reported in French, but papers in English or German will be published in these languages.

12. A museum of models, drawings, and photographs of skin diseases, anatomical, microscopical, and bacteriological preparations, will be opened in the rooms of the Congress.

By the agreement with the Committee of the XIIIth International Congress of the Medical Sciences to be held in Paris at the same time under the presidency of Professor Lannelongue, the Dermatological Congress will be united with the Section of Dermatology and Syphilis of that Congress.

Members of the Dermatological Congress will, therefore, be members of the International Congress of the Medical Sciences without any extra subscription.

QUESTIONS FOR DISCUSSION.

A.—DERMATOLOGY.

1. Parasitic Origin of Eczema.

Reporters: Messrs. Kaposi, Unna, Jadassohn, Galloway, Brocq, assisted by Messrs. Bodin and Rennes.

2. The Tuberculides.

Reporters: Messrs. Boeck, Colcott Fox, Campana, Riehl, and Darier.

3. Alopecia Areata.

Reporters: Messrs. Malcolm Morris, Lassar, Mibelli, Pavloff, Sabouraud.

4. Leucoplasia.

Reporters: Messrs. Morrow, Behrend, Pringle, Perrin.

B.—SYPHILOGRAPHY AND VENEREOLOGY.

1. Syphilis and Associated Infections.
Reporters: Messrs. Neisser, Bulkley, Ducrey, Hallopeau.
2. Descent of Hereditary Syphilitics.
Reporters: Messrs. Hutchinson, Tarnowsky, Finger, Jullien.
3. Causes of Generalized Infection in Gonorrhea.
Reporters: Messrs. Taylor, Lesser, Tommasoli, Lane, Balzer.

COMMITTEE OF ORGANIZATION.

Ernest Besnier, *President*.

Georges Thibierge, *Secretary-General*, 7 Rue de Surène, Paris.

Messrs. Audry, Balzer, Barthélemy, Brocq, Brousse, Charmeil, Danlos, Darier, Doyon, Dubreuilh, Du Castel, Fournier, Gaucher, Gémey, Hallopeau, Jullien, Le Pileur, Mauriac, Renault, Tenneson.

FOREIGN SECRETARIES.

Australia: Finch Noyes (Melbourne).
Austria: E. Spiegler (Vienna).
Belgium: Dubois-Havenith (Brussels).
Brazil: Silva Aranjó (Rio de Janeiro).
Chili: Valdès Morel (Santiago).
Denmark: Ehlers (Copenhagen).
England: J. J. Pringle (London).
Germany: G. Riehl (Leipzig).
Greece: Rosolimos (Athens).
Holland: Mendes da Costa (Amsterdam).
Hungary: L. Török (Budapest).
Italy: A. Bertarelli (Milan).
Norway: C. Boeck (Christiania).
Portugal: Z. Falcão (Lisbon).
Roumania: Petrini Galatz (Bucharest).
Russia: Lanz (Moscow).
Sweden: M. Moller (Stockholm).
Switzerland: Jadassohn (Berne).
Turkey: Zambaco Pasha (Constantinople).
United States: G. T. Elliot (New York).
West Indies: Numa Rat (St. Kitts).

[The notice which appeared in the March issue was unofficial and inaccurate as well as incomplete in many particulars. We are pleased to be able to give the program complete.—Ed.]

Selections.

CUTANEOUS DISEASES.

Neuromata.—KNAUSS (*Virchow's Archiv*, Bd. cliii., Heft 1, S. 29, 1898) gives particulars of a remarkable case of a multiple true neuroma. The patient was a girl aged 11. The parents were healthy, and had four other healthy children. She was rather small for her age, but stoutly built, and of a lively disposition. In her third year there appeared a number of small swellings under the skin of the trunk. They slowly and uniformly increased in size and number, but were never painful. They looked like flask or bullet-shaped swellings of the skin, distributed irregularly all over the trunk and upper part of the thigh. The head, forearm, hand, leg, and foot alone were free. They lay beneath the skin, which was stretched over them. They were not tender on pressure. They were firm and elastic. They varied in size from that of a cherry to that of a hen's egg. The largest was about the size of an orange, and situated just below the umbilicus. There were sixty-three or more similar swellings in all. Electrical reactions along the course of the nerve-trunks were normal.

The tumors had capsules and could be easily shelled out from the surrounding connective tissue. Section of the swellings presented a homogenous light yellow transparent appearance, with thin white fibrous-looking streaks running through it. The consistence was firm and elastic. The microscope showed the tumors to consist of nerve-fibers medullated and non-medullated, and very numerous ganglionic nerve-cells. The non-medullated nerve-fibers were by far the more numerous. The nerve-cells were rounded or oval, mostly fairly large. Their protoplasm was granular or clear. A round nucleus was generally present, with clear nuclear substance and a distinct nucleolus. They were not unlike the ganglion nerve-cells of the sympathetic, and many of them were seen to have non-medullated nerve-fibers coming from them, both unipolar and bipolar.—*Edinburgh Med. Jour.*

The Nervous System in Scleroderma.—In the December number (1898) of the *Glasgow Medical Journal*, Dr. Lindsay Steven publishes a lecture on a very important case of scleroderma, in which there was pronounced hemiatrophy of the face, body, and extremities. A full clinical account of the case was published in the *International Clinics* in 1897. On readmission to hospital in the spring of 1898 the skin on the affected side was breaking down and ulcerated, and there were symptoms of an ovarian tumor. Laparotomy was performed for the removal of this tumor, but unfortunately she succumbed on the third day after operation. There was a complete absence of pericardium, and there were cicatrices in the spleen and mixed parenchymatous and interstitial nephritis. The cortical matter of the hemisphere opposite to the atrophic side was, perhaps, a little thinner, but no microscopic examination is recorded. In the spinal cord, however, the gray matter of the right (the affected side) anterior horn was diminished, the ganglion cells were smaller and less numerous, and

their nuclei and plasma granules were not so well defined as in the corresponding cells of the opposite side. The neuroglia also in the right horn seemed denser than in the left. Corresponding changes could not be made out in the medulla or pons. Throughout the cord, medulla, and pons the arteries, especially of the gray matter, were surrounded by spaces, either empty or containing a structureless homogeneous material, and most of these spaces had well-defined margins. The nerve-fibers from the cervical and lumbar plexuses showed a well-marked parenchymatous degeneration. The skin showed absence of fat, thickening of the horny layer, and atrophy of the papillæ. Between the papillæ and the muscles there was a thick layer of dense connective tissue. Dr. Steven regards the atrophy of the anterior horn, the changes in the cells there, and the cavities around the vessels, as of much importance. He looks upon the condition as the result of these changes—*i. e.*, as a trophoneurosis of central origin. The neuritis he regards as secondary and recent. The case is of much interest, and its importance is enhanced by the long time—12 years—during which the patient had been under observation. We should doubt, however, whether Dr. Lindsay Steven's explanation of the relation of the changes in the skin to those in the central nervous system will be quite satisfactory to every one, and we should have thought it would hardly be necessary to invoke some recent parenchymatous neuritis to account for changes in the peripheral nerves. The spinal lesions would account for them.—*Lancet*, January 7th.

SYPHILIS.

Preventative Treatment of Hereditary Syphilis.—FOURNIER (*Sem. Méd.*, November 30, 1898) discusses this question: In the event of pregnancy when the father is syphilitic at the stage when the disease may be transmitted, and when the mother is healthy, can medical art intervene to safeguard the child; and, if so, what is the means to be adopted? He considers two classes of cases: (1) when the pregnancy is the first one, supervening shortly after marriage; (2) when several previous pregnancies have resulted disastrously in abortion or in early death of the child. He maintains that the child can be safeguarded by anti-syphilitic treatment of the mother, even when she is healthy. He claims that this treatment is rational, effective for the child, and free from danger to the mother. It is rational, because Porak's experiments have demonstrated that the fetus *in utero* can be reached by drugs through the placenta. Within forty minutes of the administration of iodid of potassium to the mother Porak found the drug in the urine of the fetus. It is safe for the mother, as demonstrated by wide experience; he quotes Pinard to the effect that he had not yet come across a case where the mother had suffered. As to the efficacy of the treatment, he does not claim that it will invariably save the child either from death or syphilis. But that it is a safeguard in the great majority of cases is shown by the results, both with first children when the mother is healthy and the father had syphilis in a transmissible stage at the time of marriage; and also when several preceding pregnancies had resulted disastrously. He recites several cases illustrating this point. Even though cases occur with no good results, he maintains that the attempt should be made; to do nothing is to run the risk of doing harm by compromising the child's health; to intervene is to run the risk of doing no good,

and it is better to act uselessly than harmfully. The cardinal points of treatment are, that the treatment should be begun as soon as possible after the onset of pregnancy, and that mercury is the best drug to administer. It is much superior to iodid of potassium in the prevention of hereditary syphilis; but if the iodid is given in conjunction with the mercury, all the better. Inasmuch as it is not an adult, but the fetus, that is being treated, small doses should be given. The treatment should be continued during the whole time of pregnancy. As to the particular form in which the mercury is given, and as to whether it be given continuously or intermittently, these matters the author thinks may be left to individual discretion and to the idiosyncrasy of the patient.—*Brit. Med. Journ.*

Formation of Subcutaneous Gummata.—PHILIPPSON (*Giorn. ital. delle mal. ven. e della pelle.*, Fasc. iv., p. 409, 1898).

According to Dr. Philippson the formation of subcutaneous gummata is determined by the occurrence of proliferation of the endothelial lining of a vein (endophlebitis obliterans) and consequent thrombosis. An accumulation of round cells takes place around this obstructed vessel forming a granuloma, and the central portion of the mass soon undergoes coagulation necrosis and dies. This dead tissue acts as a foreign body, and quantities of leucocytes accumulate and penetrate the mass; ulceration of the overlying skin takes place and the well-known syphilitic ulcers are formed. The writer describes peculiar changes in the fat cells of the subcutaneous tissue, not previously recognized, by which the fat is broken up into droplets and absorbed, while the cell body is converted into one of the large giant cells found in syphilitic, as in tubercular, lesions. He considers that the vascular thrombosis is the primary cause of the formation of a gumma, but differs from other writers on syphilis in that he finds that the veins rather than the arteries are the main seat of the morbid process.—*Med. and Surg. Rev. of Reviews.*

Therapeutic Notes.

Pathology and Therapeutics of Gonorrheal Arthritis.—Loewenhardt (*Wien. Med. Presse*, November 6, 1898, col. 1777).—Gonorrheal arthritis is not yet admitted by all as a specific disease, some writers still maintaining that it is only the accidental occurrence of rheumatism in a sufferer from gonorrhea. The gonococcus has, however, been frequently found in the affected joints, and it is probable that failures to find it in other cases may have been due to defects in the technique employed in the search. This organism is an obligatory parasite; its toxins have been isolated, and an emulsion of dead bacteria has produced suppurative arthritis experimentally. Other manifestations beside joint affections may occur in the course of the disease, such as skin-eruptions, endocarditis, retinal changes, and psychical disturbances, so that instead of a local ailment gonorrhea in some cases comes to be a general disease ("Gonococcosis," D'Aubney). It may even occasionally prove directly fatal. The arthritis is distinguished from rheumatism by the nature of the changes in the joints, being characterized by only slight destruction, followed by an exaggerated reparatory process, with

formation of granulation tissue, leading to fibrous ankylosis. Relapse or reinfection is very liable to cause renewed joint affection, whereas an intercurrent attack of rheumatism or exposure to wet and cold does not have this effect. From osteo-arthritis it is distinguished by the absence of changes in the bones.

No drug can lay claim to act as a specific in this disease. Relief of pain is sometimes afforded by salicylate of soda, and iodid of potassium is occasionally useful, though it often fails. The same may be said of "oleum gaultheriæ," recommended by Taylor. The writer finds that salol and sandal-wood oil administered in capsules give the best result. Of mercurial treatment he has had no experience. The affected joints should be fixed on splints to secure absolute rest, but this treatment should not be continued longer than is absolutely necessary. It is advisable to draw off the fluid from the joint if it is much distended, and even arthrotoomy may be practised. Later on massage is useful, and heat, applied by means of hot air or sandbags, is appreciated by the patient. In the former Härtel's apparatus is to be preferred.—*Med. and Surg. Rev. of Reviews.*

Oxydized Chrysarobin.—UNNA (*Bulletin Gén. de Therap.*, vol. cxxvi.) uses the product obtained by the action of hydrogen peroxid on chrysarobin suspended in water, in conditions where chrysarobin would be too irritating, such as eczema and lupus erythematosus.

Antinosine in Chronic Ulcers.—OHLMANN-DUMESNIL (*St. Louis Med. and Surg. Journal*, vol. lxxvi., No. 3, p. 121, 1899) recommends the drug strongly. He applies a watery solution and covers the ulcer with antinosine gauze. The amount used need not be restricted for it is non-poisonous and irritates very slightly in the first few dressings. The ulcers healed rapidly and the patients during treatment were able to pursue their ordinary callings.

Calcium Sulphid in Acne.—MCKINNEY (*Id. Med. Journ.*, Nov. 19, 1898) says that the remedy *par excellence* is the sulphid but he does not trust to it alone, using the curette, extractor, and antiseptic applications as well. The proper dose is 1½ gr. twice a day, increased until four are taken, given in coated pill.

Therapeutic Reports

This department has been opened for a free discussion of the merits of preparations offered for the use of the profession.

SANDALWOOD OIL IN THE TREATMENT OF GONORRHEA.

By J. M. PEACOCKE, M.D.,

Brooklyn, N. Y.

The number of remedial agents added to the Materia Medica during the present decade has been very large, yet it may with truth be said that the efficacy of old and tried remedies has in no wise diminished with the quantitative expansion of our therapeutic resources. The physician of experience, though he may occasionally resort to one or another of the newer remedies, will eventually have recourse to those which have stood the test of time. This is especially true when we are called upon to combat some formidable, painful, or loathsome malady.

From the remotest period oil of sandalwood has, in Oriental countries, been almost exclusively relied upon in the treatment of acute gonorrhea, and, when in 1865, Henderson of Glasgow introduced this treatment into Great Britain, the way was opened to test its efficacy scientifically.

The disagreeable eructations and papular efflorescence often produced by copaiba, the objectionable bodily exhalations attendant upon the employment of cubebæ, and the inconvenience attaching to urethral irrigation, are all avoided by using oil of sandalwood. The best form to administer the remedy becomes at once an important consideration.

Bearing in mind the distinct advantage to be gained by rendering alkaline the urine of the gonorrheal patient by means of a soluble citrate, the question naturally arises, cannot the two remedies be conveniently combined?

Such a form of valuable combination will be found in capsules of citrosandalene, each containing five minims of East India mysore sandalwood oil and five grains of C. P. potassium citrate.

This treatment supplemented with a saline cathartic, soakage of the affected parts in hot normal saline solution, smearing afterwards with vaselin to prevent chordee, and such abstemiousness as is always necessary to be enforced on patients with gonorrhea, will rarely have to be continued beyond two weeks. In fact, the beneficial results will be appreciated within the first forty-eight hours after its commencement by a marked falling-off in the quantity of the discharge, an amelioration in the *ardor urinae*, and an improvement in the general condition of the patient.

In conclusion, the writer desires to say that he is not unmindful of the excellent and gratifying results obtained from injections of protargol, argonin, peroxid of hydrogen, permanganate of potash, boric acid, etc. It is safe, however, to defer all local applications to the urethra until the acute symptoms have subsided, and to rely on oil of sandalwood and citrate of potash, agents that seldom disappoint and which possess elements of efficiency and safety that cannot be ignored.

CONCERNING SILVER AND THE SILVER SALTS.

BY DR. G. WOLFROM,

Magdeburg-Buckau.

(Abstract of paper read before the Magdeburg Medical Society, April 28, 1898; *Allgemeine Medicinische Central-Zeitung*, No. 42, 1898.)

The author confirms the results obtained by Credé with the citrate and the lactate of silver, and records his opinion of their decided superiority to other remedies as external disinfectants, on account of the energy and the depth of their action and their freedom from irritant and destructive effects. He praises the citrate, more especially because of its slow solubility, the duration of its action, and its absolute non-poisonousness and non-causticity. He recounts a few pregnant cases of mastoid operations, severe burns, injuries to joints and complicated fractures, in which the saturated solution of the citrate of silver and drainage with the citrate-of-silver gauze rendered him most excellent service.

In the second part of his paper the author considers the important subject of the soluble metallic silver recently introduced by Credé, and its therapeutic value in septicemia (blood-poisoning). He demonstrates the remarkable physical properties of this soluble metal, and of the preparations made of the argentum colloidal, more especially the silver salve, the unguentum Credé. He shows by means of microscopic illustrations that the argentum colloidal, both in watery solution and in salve form, is a suspension of the very finest molecular particles, and is in a condition most suitable for reception into the capillaries and the tissues.

Wolfrom's experience in the treatment of four cases, one of which was himself, is of very great importance in deciding the indications for the use of the soluble metallic silver in the treatment of acute and chronic septic infection, and in estimating the value of the unguentum Credé from the standpoint of the practitioner. Wolfrom had suffered for 5

years from an extremely obstinate and increasing furunculosis, occurring mostly in the autumn. From the beginning of December, 1897, to the middle of January, 1898, Dr. Martin of Buckau had made at least forty incisions of the furunculous nodules. In despair Wolfrom at length began daily washings of the skin with citrate-of-silver solution, and inunctions of the inflamed areas, after washing, with 10-per-cent. citrate-of-silver vasogen. The furuncles retrogressed for a time, but reappeared at once when the treatment was stopped. He then applied to Credé for help, who advised him to try the silver salve.

On March 22, 1898, there were three developing abscesses on the coccyx to the right of the nates on the right thigh, with headache as the expression of the general infection. On the same evening Wolfrom made an inunction of 3 grams (45 grains) of unguentum Credé for 20 to 25 minutes, using the left, healthy side of the body for the purpose. Its effect was that even on the day following the first inunction his sensorium was clear. After the second inunction the indurations around the softened abscesses melted away, and the hard lumps in the subcutaneous cellular tissue began to disappear. After taking seven inunctions altogether, Wolfrom two months later was entirely free from furuncles.

The author obtained equally favorable results in two other cases of furunculosis and in one of phlegmon of the leg.

In conclusion Wolfrom reviews the indications for the use of the silver salve in the various acute and chronic pathological conditions caused by septic infection. He lays stress upon the necessity of beginning the silver treatment of the general system early, before the advent of dangerous secondary symptoms and toxic effects. He is firmly convinced that the soluble silver will influence fresh cases, of septicemia, as well as chronic ones of furunculosis when no complications are present, most favorably. Often, indeed, it will effect a rapid and most astonishing cure. He, therefore, most urgently recommends the use of the Credé method in suitable septicemic cases to his colleagues.

JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES.

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No. 5.

Original Communications.

THE VARYING RESISTANCE ENCOUNTERED IN ELECTROLYTIC WORK AND THE NECESSITY FOR USING A MILLIAMPEREMETER.

BY M. B. HUTCHINS, M.D.,
Atlanta, Ga.

IN the JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES for September, 1897, I published a short paper under the title: "A Case Illustrating Individual Resistance in Electrolytic Work," giving a few examples other than the case especially reported.

Believing that the loose advice now commonly given as regards the quantity of current to be used is harmful and should no longer prevail, I have carried on a few investigations and recorded a few clinical observations with a view to putting the matter in such shape that writers hereafter will no more give the number of cells as a guide for those they wish to instruct, than would a teacher of practice advise the taking of a patient's temperature by the pulse or the feel of the skin.

As is well-known, a milliampere, in our work, is the current which is left after overcoming all resistance between the poles of a battery, just as a quantity of water might go in a hose at a certain speed, but its speed is lowered at the exit—resistance. You might run the current of the weakest cell through the meter and think you had a powerful current when the same current would barely be perceptible if put through the tip of the tongue.

In doing electrolytic work we have numerous things to consider,

which may effect the current and give us just so much more or less than needed. The ordinary "compass meter," such as used in my experiments, is not the best or most reliable, especially for registering below $\frac{1}{4}$ m. a., but for practical use, it is nearly enough accurate to place it far beyond an estimate of current by cells, and its capacity is best to register a current which is high or injurious.

What authors say of current strength to be used:

Brocq (*Ann. de derm. et de syph.*, Oct. and Nov., '97) (*Brit. Journ. Derm.*, Nov., '98) leaves much latitude for the physician, but uses a meter.

Bulkley, 1887 and 1898, says 6 to 12 cells; Robinson, 1885, 6 to 15 cells; Dühring, 1888, 6 to 12 cells; Shoemaker, 1892, no m. a., but quotes Prince of Boston, $\frac{1}{2}$ to 3 m. a.; Kaposi, $\frac{1}{2}$ to 1 m. a.; Hyde, 1897, mentions a meter but says 2 to 20 cells may be used according to circumstances; Crocker, 1893, says 3 to 5 m. a. are sufficient; and that the current varies even in a sitting.

In Morrow's system, 1894, Jackson does not mention number of cells or m. a. meter, but in Bangs-Hardaway Text-book, 1893, says if one has no meter, he can use 6 to 10 cells, and in *Medical Record*, June 4, 1898, though the meter is not absolutely essential, it is a most desirable instrument, but does say that speaking of so many cells is inaccurate and unscientific. He also refers to variability in resistance in different skins.

Hardaway, the originator of electrolytic work, in dermatology, says in his last "Manual," 1898, that a meter is not absolutely necessary. "Haynes' Elementary Principles of Electro-Therapeutics," 1896, only gives the number of cells; Liebig & Rohe, "The Pract. Ap. of Elect. in Med. and Surg'y," 1890, $\frac{1}{2}$ to 2 m. a.

As shown by the above list the accurate measurement of current is not insisted upon, and the majority leave the operator to find out for himself. It is probably the most unscientific advice to be found to-day in medical literature.

To follow the title of this paper, it is necessary that I combine the discussion of variability of resistance of persons with mention of other elements affecting the accuracy of the work. Eliminating all sources of error, I have been able to add other cases showing varying resistance to those mentioned in my previous paper.

The battery is composed of cells of the LeClanche type, wired in series, to a Kidder plate, with slides to raise or lower number of cells.

The following table shows a few experiments made with sponge electrodes in the hands; showing the different resistance in different

people using my own hands as control to the test. All experiments were repeated to verify.

1. H. 2 m. a. Black office boy, thicker epidermis, $1\frac{3}{4}$ m. a.

2. H. $1\frac{3}{4}$ to 2. No difference in epidermis, 1 to $1\frac{1}{2}$ m. a.

3. H. $1\frac{1}{3}$ m. a. No difference in epidermis, $2\frac{1}{3}$.

Outfit moved—rearranged.

4. H. $1\frac{1}{4}$ m. a. Office boy (as in No. 1), $\frac{3}{4}$ m. a.

5. H. $1\frac{1}{2}$ m. a. Merchant, 3 m. a.

6. H. $\frac{3}{4}$ m. a. Young lady stenographer, 1 m. a.

Fewer cells. Through the cheeks.

7. H. $1\frac{1}{2}$. (Same as No. 6), $1\frac{1}{2}$.

Through hands.

8. H. $\frac{4}{5}$. Doctor, $1\frac{4}{5}$.

Cleansed sponges. Clearer, lighter water from top of vessel.

9. H. $2\frac{1}{4}$. (Another), $3\frac{1}{4}$.

Water as at first.

10. H. $1\frac{1}{4}$. (Another), $1\frac{3}{4}$.

11. H. $\frac{3}{4}$. Young lady, $\frac{3}{4}$.

12. H. $\frac{2}{3}$. Old lady; age 85, $\frac{2}{3}$.

13. H. $\frac{3}{4}$. (Same as No. 12), 2 days later, $\frac{1}{2}$.

14. H. $\frac{3}{4}$. (Another), $\frac{1}{2}$.

15. H. $2\frac{1}{3}$. Hyperidrosis, soft epidermis, fine fissures. Old man, age 71, $\frac{3}{4}$.

Weight of people tested, from 110 to 170 lbs.; no difference in epidermis except as noted.

16. H. $1\frac{1}{2}$. Office boy, $1\frac{1}{10}$.

17. H. $\frac{3}{4}$ m. a., more current through palms than above.

18. H. 2 m. a., more current than above person with sponges pressed on backs of hands.

19. Slightly more resistance in my face than in his. This shown on two different days. His face has more fat.

20. Same day as No. 19, $\frac{3}{4}$ m. a., more current through my palms, hands perspiring; about 2 m. a. more through my dorsi (not perspiring); and $1\frac{1}{2}$ m. a. more through my face, his face a bit fuller than mine, sponges partly in beard. This a physician.

21. Man, weight, 210; through wrists, 2 m. a.

Man, weight, 156; through wrists, 1 m. a.

Man, weight, 118; through wrists, 2 m. a. Retested, result the same.

Individual test, palmer hyperidrosis, fine fissures between horny cells. 10.20 A.M., 2 m. a.; 3.40 P.M. $3\frac{1}{2}$ m. a.; $\frac{1}{20}$ -gr. strychn. sulphat. during the day.

Another test: with sponges in palms the resistance was only $\frac{1}{4}$ to $\frac{1}{2}$ m. a. greater than through one hand, palm to dorsum. This shows epidermic and bony resistance. Sponges in each test pressed firmly and equally.

Using my hands as control test, I found a variation in my own resistance which was marked by $\frac{2}{3}$ m. a. as lowest and $3\frac{1}{2}$ m. a. as highest. The latter with hyperidrotic maceration and fine fissures, with possible effect of the large dose of strychnia sulphate. Variation in my own case appears to have been greater than that of the battery. The differences shown with other people, in the table, were absolute—after deducting all extraneous causes of variation. How marked an influence the epidermis exerts is shown in No. 15 and No. 20. Variability in resistance was shown even in experiments through the face. In case of the black office boy, his face was less resistant than mine while even the dorsa of his hands gave more resistance than mine.

Tests of Battery. Volt-meter not available. Tips of cords, arranged so as to be uniformly immersed in every test, in top of glass of water.

1. 1 m. a.; in half hour 1+.

Took out negative, replaced it, rise to $1\frac{1}{2}$ (shock to meter), fell in few seconds to $1\frac{1}{6}$. Repeated; $1\frac{1}{6}$.

2. 9.30 A.M., $\frac{4}{5}$ m. a.; 10.08, $1\frac{1}{6}$, remained at latter over an hour.

3. 4 P.M., 1 m. a.

4. Two days later $1\frac{1}{2}$ m. a. (different water?).

5. Water first from hydrant in morning, $\frac{1}{2}$ m. a. (sediment in water from standing in pipe). Water filtered by alum process, building pipes partly of lead.

6. Tips in water as in Nos. 1, 2, 3; 1 m. a.

7. Water as No. 5 (?) $\frac{3}{4}$ m. a. for half an hour.

8. In water from top of vessel, having been in vessel several hours, $2\frac{3}{4}$ to 3 m. a., oscillation of $\frac{1}{10}$ m. a. for some minutes. After half hour $3\frac{1}{2}$ to $3\frac{1}{2}$ m. a.

9. Water as No. 5, $\frac{3}{4}$ m. a.

As to variability in the current: 9 tests were made.

Where the water used was the same the variation in current was almost nil, the variation in the test prolonged from a few minutes to over an hour's time, being less than $\frac{1}{2}$ m. a., and four of the nine tests showed exactly the same current, though made on different days. The different water used caused the other variations, one clear pure specimen permitting increase of 2 m. a. In many other tests where water was used as a standard the current was found to correspond very uniformly with that registered in the special tests of the battery with water.

Tests of different animal tissues. Pieces of beef muscle, liver, kidney, fat. Size of each about $1 \times 1 \times 1\frac{1}{2}$ inches, weight, one ounce. Metallic tips of cords applied equally to each. These tests are through the thickness:

1. Fat. (Dry connective-tissue covering). 0 m. a.
2. Muscle. 6 m. a., with gradual increase: more rapid electrolysis.
3. Liver, $1\frac{1}{2}$ m. a.
4. Kidney, 2 to $2\frac{1}{2}$ m. a.

Tips perpendicular to the surface, 1 inch apart.

(1) Fat, 0 m. a.; (2) muscle, 2 to $3\frac{1}{4}$ and up; (3) liver, $\frac{3}{4}$; kidney, 1, but little different from liver.

Soaked well in water, squeezed out, but left wet. To surface.

(1) Fat, 0 m. a.; (2) liver, $1\frac{1}{4}$ m. a.; (3) kidney, $\frac{3}{4}$; (4) muscle, $3\frac{3}{4}$ to 4; (5) Same thickness my tongue, $1\frac{1}{2}$ m. a.

Tests with different animal tissues show the varying resistance present in substances of different chemical composition. There being no difference in their density, we cannot look for this element as explanatory. In the case of fat, the dry connective tissue prevented the passage of the current. There was active negative electrolysis in all tests with muscle; faint in liver and kidney.

Until I reached the following experiments, I thought the chemistry of variable resistance might be easy to work out.

TESTS WITH DIFFERENT FLUIDS.

1. Specimen cold, acid urine in glass: over 25 m. a. (unregisterable).
2. Fresh warm acid urine: same as above.
3. City water, like earlier tests, $1\frac{1}{4}$ m. a.
4. (Alleged) Distilled water, $1\frac{1}{4}$ m. a.

COMPARATIVE TESTS.

1. Water, $1\frac{1}{3}$. The same after having illuminating-gas put through it $2\frac{1}{2}$ to $2\frac{3}{4}$ m. a.
2. Other water, 1 m. a. Same with 5 m. acetic acid added, $2\frac{3}{4}$ m. a.
3. Water, 1 m. a. Same with 5 m. liquor potassæ stirred in, 6 m. a. gradual fall to $5\frac{1}{2}$.
4. A little calcium carbide dropped in plain water doubled m. a.
5. A pinch of salt added to water rendered milliamperage unregisterable.
6. $\frac{1}{2}$ ounce of old hydrogen peroxid in bottom of the glass $7\frac{1}{2}$ m. a.
7. The same test with half an ounce of water gave $\frac{1}{6}$ to $\frac{1}{4}$ m. a.
8. Glass of water as at first 1 m. a.

9. One dram bicarbonate of soda dissolved in above as high milliamperage as urine, salt water, etc.; unregistrable.

Tests with sponges, wetted with different fluids, in hands. Sponges cleansed after each, but first, test.

1. Water, $1\frac{1}{2}$.
2. 10 m. acetic acid to 2 ounces of above, $2\frac{1}{5}$.
3. 10 m. liquor potassæ to 2 ounces water, $1\frac{5}{6}$.
4. Weak salt solution, 3 m. a.
5. Hands greased, beef fat, slight reduction in resistance.
6. Later. Water, $1\frac{3}{4}$.
7. "Germicidal"-soap lather on palms, $2\frac{3}{4}$ m. a.

Tests of water with different substances dissolved in it, demonstrate how greatly the conductivity of the water increased, and this is no doubt due to the chemical instability given the water by these additions.

Wetting both sponges with water, having different substances added in most cases allowed the passage of more current through the epidermis, but a series of experiments with the positive sponge alone, were very perplexing and difficult to estimate, the negative sponge being wet in plain water. The only positive conclusion reached was that salt, soap, and possibly soda bicarbonate permitted the passage of more current. The fault in some of the latter experiments doubtless lay in the use of too weak additions of the different drugs, the increased softening of the horny epidermis during the continued tests and probably the incomplete saturation of the sponge with the solution.

TWO OTHER TESTS.

1. Small lump of dry calcium carbide, practically no resistance. Unstable.

2. Lump of dry salt, no conduction.

The experiments recorded have been made, at intervals, for six months in all sorts of weather, and under many conditions.

Experiments with small additions of various substances to water show how we may get a variation in current through differences in water used on the sponges. Again, as shown in some of the tests, the sponges might be used with common water without having previously been cleansed of the contamination of a preceding use. Carelessness in this particular spoiled one whole series of experiments.

The cases quoted below confirm the observations made in the paper referred to at the beginning of this article, and I have no doubt that others who do electrolytic work (with a meter in circuit) have had similar experience, whether or not they were impressed with it.

Case of young lady, coarse hairs on chest. One day nearly four times as much current register, right hand to chest, having changed from the left hand, as from the left. Changed back to left; lowered to former quantity. Two days later, the same observation, except that the m. a.-age only doubled through the right hand that through the left. This case was referred to in the previous article. The next day practically no current through the left, $\frac{1}{2}$ to 1 m. a. through right. The same the next day. Other days not noted. It was often observed that more current passed through the hand farthest from the site of operation. I was never able to see any difference in the two hands. Change of hand as before recorded, sometimes brings up the m. a.-age when it has fallen, as mentioned in the first case in my other paper.

Another lady. Coarse hairs on the face.

There was often more current through one hand than through the other (being left or right-handed made no difference—harder epidermis expected in the most-used hand). Once, having difficulty in sustaining the m. a.-age, I wet the sponge with strong salt water. The current remained about the same through either hand for the rest of that sitting. The observation of variability in the passage of the current was frequent in the second case. Some days more current would pass through one hand, and other days more through the other, and variation in resistance differed from day to day. A brief rest or change of point of operation often ran up the m. a.-age.

In cases where it was desirable to use a very weak current I have been able to remove many, chiefly fine, hairs permanently with practically no, or as low register of m. a.-age as $\frac{1}{6}$, but the treatment was extremely tedious.

In a third case, a variation of current was also noticed for several successive days, there being far the least resistance through the left hand.

In another case nearly 1400 hairs were removed with an average, scarcely varying current of $\frac{1}{4}$ m. a.

In a fourth case, of the areole, many hours' work; the meter was very variable when the positive was in either hand, change would help a little. There was a more regular current when I used a carbon, chamois-covered, one-inch square, wet, positive electrode near site of operation.

Vesiculation sometimes noted about the needle, even from small m. a.-age, probably due to the presence in the tissues of a substance extra easily broken up.

A dentist showed marked resistance through the palms, with an increase of current through the dorsa of $\frac{1}{3}$ to $\frac{2}{3}$ m. a., but still, his

general resistance was great. One day it was noted that we got $\frac{1}{3}$ to $\frac{1}{2}$ m. a. more current through the dorsum of the left than through the dorsum of the right hand, which could not be explained by the fact that the lesions treated were on the left side of the face, for it was the same in treating a large one on the right side of the neck.

In the case of a sixteen-year-old, healthy girl with a nevus pigmentosus of the forehead; her resistance with the positive sponge on the dorsum of the hand was greater than mine through the palm. Her resistance was greater through the right than through the left hand. This excessive resistance gradually disappeared as the operations were repeated on succeeding days.

In a case of "port-wine mark" of the forehead the current kept very steadily at $\frac{1}{2}$ or $\frac{1}{4}$ m. a., as desired, but occasional fall was remedied by change of hands. In many brief cases variation was not noted, and in others there was no variation. Repeated tests of the battery proved positively that it was not at fault. It is hard to say that the meter was always reliable, as the kind used is very susceptible to various influences, but sufficient control tests were made to prove that the variations noted were not in the meter, but in the patient's tissues.

"It has been estimated that the human body, owing to the salts which it contains, conducts nearly twenty times better than water *when the skin is well moistened*" ("Haynes' Elementary Principles of Electrotherapeutics," 1896). Italics in above quotation, mine. Yet this bodily conductivity varies, owing perhaps to variation in the quantity of these salts. The same authority says all substances are decomposed by electrolysis into their original elements. "Some of the results of passing a current for some time through the body (whose cells contain, and are bathed in, a saline solution) may be due to electrolytic changes in the patient."

As electrolytic action is largely chemical, we find ourselves brought to face the separation of many substances which may be in the circuit into their original elements. If the current is weak, this action is slow and but partial. If strong, rapid and more complete. I first had the thought that we would reach a definite conclusion as to the exact substances responsible for variation in current, but my experiments show that many totally unlike chemicals may present similar results and that we must not look for a specific fault in each varying patient, but be prepared for variation, whatever its cause, with reliable and accurate apparatus. I believe it to be simply a matter of chemistry and that those chemical substances which are least stable are the best conductors.

Eliminating all sources of error, we have found that there is a variation in individuals compared to one another. That this is not due to

epidermic differences alone is proven by the fact that the majority of people tested showed an epidermis not visibly different from the control individual. That the same individual differs at different times and on different days is shown by my records of cases, as quoted above.

That the use of different kinds of water on the positive sponge electrode alone may cause variation in conduction through the skin I have not been able to prove accurately because of one other confusing element: *viz.*: the softening of the epidermis by the continued use of the same palm after testing with plain water. This softening (maceration and electrolysis (?)) must be taken into consideration to help explain the occasional increase of m. a.-age after a prolonged application of the wet sponge. One or two fine fissures in the horny layer or the softening effect of hyperidrosis permit a large increase in m. a.-age. The quantity and reaction of the sweat could have a similar effect, and the variation in the chemical constituents of the tissues and fluids of the body must certainly account for much of the differences in resistance.

As to the battery. It is possible for the elements of the cells to be of different purity, density, and even chemical structure. The fluid used may vary in the different cells, and certain cells may have deteriorated more rapidly than others, or their elements may show a varying degree of deposit of chemicals. The battery has numerous connections, all of which it is impossible to have uniform and of exactly the same conductivity. The cords or needle-holders may be defective, or become so with use. A little dirt, grease, or rust may produce considerable resistance. The patient's skin may be in imperfect or varying contact with the sponge electrode, the metal electrode beneath the sponge may be dirty or covered with a deposit which the current must first break through. If we put the positive electrode in water, the patient putting the fingers or hand therein, to complete the circuit, the current will vary according to the immersion, and may even change through the action of the current on the water itself as well as upon the electrode. There are many reasons for using a meter, the only reasons for not using it being found in not possessing one.

While the chemical elements of the tissues and fluids of the body are given in physiology as nearly in constant proportion in health, these elements must vary in the living subject, according to the food taken, exercise, mental activity and influence, and the action of the emunctories. Pathology shows that such variation is decided in diseased conditions.

A difference of resistance is quite well-known to workers with dynamic electricity, as many electricians can testify. That some animals, as the horse, have less resistance than man is known, a horse being

killed by a current which is insufficient to harm a man. That a horse has less resistance than a man would seem further proven by the remarkable statement that the former will shrink from a galvanic current in the frog of the foot which a man could barely perceive through the tongue. Being herbivorous, certain salts are more abundant in the horse. Man is omnivorous and polyphagous, and his proportion of chemicals is constantly being upset, with the result that his resistance to the current may constantly vary. When electrolysis destroys the conducting or resisting chemical substance in the tissues, or overcomes it, we get a variation in current flow. This seems to me the logical solution of the question, but the exact determination of the elements which influence the passage of the current must be left to those who give their attention to physiological chemistry.

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A FEW REMARKS ON THE DIAGNOSIS AND TREATMENT OF RUPTURE OF THE BLADDER.¹

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RUPTURE of the bladder is a rare accident and is seen but seldom even by surgeons of large hospital experience. The occurrence of five or six cases in quick succession within a few months at the Boston City Hospital has seemed to the writer sufficient apology for offering to this section a few remarks on the diagnosis of rupture of the bladder and a few deductions as to the treatment of this accident. No complete or systematic consideration of the subject is intended: and as any one man's experience with this accident must of necessity be a very limited one, any suggestions made in these remarks are made with all modesty and are intended more as a basis for a general discussion of the subject than to establish any definite laws for the treatment of such cases.

All of the six cases were treated at the Boston City Hospital, one by myself and one each by Drs. Bimell, Munro, Monks, Lund and Cushing. To these gentlemen I owe the privilege of making use of five of the cases. The cases are briefly as follows:

¹Read before Genito-Urinary Section, New York Academy of Medicine, April, 1900.

Case I.—Man; age 26 years. Somnambulist. Fell from second-story window during sleep. Entered hospital 48 hours later with evidence of extravasation over penis, scrotum, perineum, and above pubes. Could not urinate.

Perineal section. No urine in bladder. Suprapubic opening without opening peritoneum. Catheter tied in through perineum. Drainage-tube in suprapubic wound.

Gradual sinking and death from sepsis in two and one-half weeks.

Case II.—M. L. Man; æt. 38. Fell down a few steps while drunk and with a full bladder. Could not urinate. Vomited. No blood. No pain. Entered a few hours later. Catheter showed no urine in bladder. Slight pain in abdomen—also slightly tender. Constant desire. Catheter passed again and went through empty bladder into cavity which contained bloody fluid. Diagnosis extraperitoneal rupture made. Suprapubic section, opening abdomen. Rent in bladder not found; drainage entirely above with wicks. Soft rubber catheter tied in the urethra. Complete healing in 2 months, as urine was sterile from start to finish.

Case III.—P. S. Man; æt. 39. Spar fell on him. Fractured pelvis and rupture of bladder. Shows bloody urine by catheter. Abdomen tender. Dull from umbilicus down and dulness not changed by catheter. Operation—perineal space free. Nothing in abdomen. Wicks above and catheter tied below. Opening into bladder not found. Perineal section for drainage 2 weeks later. Fistula permanently healed 2 months from injury.

Case IV.—H. K. Man; æt. 32. Fell down stairs while drunk. No shock, pain, or vomiting. 24 hours later bladder symptoms. Catheter draws 5vi. blood. Pain. Dulness both iliac fossæ. Laparotomy within 24 hours of accident. Large rent in fundus and posterior wall of bladder. Then 10 inches bowel found torn from its mesentery was resected. Murphy button. Wicks above. Catheter through urethra. No leak up to death. Death from shock in 4 days.

Case V.—E. H. Boy; æt. 8. Electric-car accident. Multiple injuries with rupture of bladder. Catheter 5iv. bloody urine. Could not operate on account of shock. Next day under cocaine. Prevesical incision opening abdomen. Opening found behind pubes. Drainage-tube above. Tube removed in 3 days. 3½-weeks' sinus healed. Discharged from hospital 2 months from accident.

Case VI.—M. M. Woman; æt. 41. 2½-hours' labor. No instruments. First 5 days of convalescence uneventful. 6th day sudden sharp pain and something broke. Grew weak and pale. No urine since pain. Came to hospital collapsed. Could not operate. Internal

hemorrhage? Catheter 5ix, bloody fluid. Death. Autopsy: Large quantity bloody urine in abdomen. Intestines not injected. Bladder ruptured on posterior wall in median line, in anterior cul-de-sac where it lay in close connection with uterus. Rupture was a ragged hole with inflamed edges and area about it was inflamed.

Summary: Six cases. 4 extra-, 2 intra-peritoneal. Deaths, 3—1 extra-; 2 intra-peritoneal. Cause trauma—5. Muscular action—1? In only one of extra-peritoneal cases could seat of rupture be found at operation. One case (I.) of extra-peritoneal rupture died, which perhaps might have been saved if a laparotomy had been done for more careful drainage. Another death (IV.) might have been avoided if other injuries had been sought for before the bladder was repaired.

Ever since laparotomies began to be done to any extent, surgeons have been wounding the bladder without intending to do so: sewing up the wound and having no further trouble from this complication of their operation. Nowadays one may feel chagrined and mortified when he opens a bladder by mistake, but the error rarely causes any anxiety and it is taken for granted that no untoward complications will result.

Again, surgeons are constantly sewing up bladders which they have intentionally opened for one reason or another, and it is the rule and not the exception for such fresh bladder wounds to heal promptly and without trouble or complication.

As a result of these facts, it has come to be a pretty thoroughly established surgical principle during the last fifteen years that a wound of the bladder will heal promptly if given a fair chance, and that if such a wound communicates with the peritoneal cavity it should be sewed up at once.

So much success has attended the suturing of bladder wounds that many operators do not hesitate to open the bladder into the peritoneal cavity in the endeavor to obtain plenty of room for suprapubic operations, and Dr. F. B. Harrington of Boston in an article in the *Annals of Surgery* for 1893, page 408, "On the Feasibility of Intraperitoneal Cystotomy with Report of a Case," advocates this procedure in suprapubic operations. His method of operating is to make a long incision into the abdomen, pack off the intestines very carefully with gauze and then having isolated the bladder, to open it freely so as to get a good view of its interior. He claims great ease of inspection as well as facility in the removal of the offending tumor, stone, or prostate. So that, in spite of the fact that comparatively few cases of intra-peritoneal rupture of the bladder have recovered after suturing of the rent, yet the experience of the last fifteen years (since Mr. Walter Rivington, surgeon to the London Hospital, laid down the rule that

intra-peritoneal rupture means immediate laparotomy), is such that we have come to consider this procedure as a firmly established principle of surgery. The ease with which accidental and other bladder wounds are repaired has greatly aided the establishment of such a belief.

Immediate operation then is the one thing which offers us hope, and is the one thing to be accomplished in as many cases as possible. Any aid to an immediate diagnosis or any formulation of operative indications which will justify immediate operation in doubtful cases is to be desired.

Now, if it invariably happened that the earliest symptoms of bladder rupture were positive enough and clear enough to show that the rent was present and whether it was intra- or extra-peritoneal it would be clearly our duty to operate in every case. Unfortunately this is not the case and it is by no means an uncommon occurrence that the delay believed to be necessary to make a more exact diagnosis is the deciding influence between the life and death of the patient. There can be no delay once a rupture of the bladder is diagnosed or even suspected. The time to operate is there and then and the only excuse for not doing so is that the patient's condition is such that operation will surely prove fatal. (Case VI.)

The diagnosis of intra-peritoneal rupture is often easy, but can seldom be made positively and immediately without the assistance of the bladder-injection test which if I am not mistaken was first suggested by Dr. R. F. Weir of this city. We may or may not have in any one case the history of injury, the initial shock, pain, frequent passage of bloody urine in small quantities, urgent and well-nigh constant desire to urinate, the empty bladder with free fluid in the peritoneal cavity, etc., etc. The point is this: There is no time for careful study and extended observation. The decision as to operation is to be made then and there, and the cases where such immediate operation can be fully justified without the aid of the information furnished by the injection of a measured amount of fluid into the bladder through a soft rubber catheter and the measuring of the amount which flows out again, are few. Dr. Charles K. Briddon of New York, in a paper on "Intra-peritoneal Rupture of the Bladder" published in the *Annals of Surgery* for December, 1895, speaks of this aid to diagnosis as follows: "I regard the institution of this measure as of very doubtful utility and not free from the danger of spreading the infection over a larger area than that already involved by the existing extravasation, and it also incurs the danger of breaking up such adhesions as do occasionally limit the effusion." This criticism is perhaps a just one but at the same time it implies that the injury is no longer a recent one at the time the test

is made. It is the writer's belief that most cases of bladder injury fall into medical hands almost at once and that, in spite of the fact that in some of the cases the serious character of the injury is masked by alcohol (Case IV.) or by other serious and coincident injuries (Case V.) there is usually something to lead one to suspect the existence of this accident. Even the slightest suspicion should be followed by the injection test and the question of operation settled then and there in the great majority of cases. The cases when such immediate decision can be made without the aid of this test cannot be common. The imperative necessity of such immediate decisions does not seem to require further demonstration.

It is not my purpose to enumerate or to discuss individual symptoms, but let us suppose that with or without the aid of the injection-test which the writer considers so essential, the diagnosis of rupture is made. More evidence still is needed if it can be obtained, *i. e.*, the knowledge of whether the rupture is extra- or intra-peritoneal. The injection-test may furnish this knowledge by increasing the pre-vesical tumor and dullness without increasing the amount of or showing the presence of free fluid in the peritoneal cavity, thus establishing the diagnosis of extra-peritoneal rupture. The catheter may pass through an empty bladder and then on into another cavity containing bloody urine, as in Case II. of my own, thus establishing a diagnosis of extra-peritoneal rupture. Occasionally then this immediate and accurate diagnosis can be made; more often it can be strongly suspected. Frequently it is impossible to know one way or the other, and only too often must we undertake the treatment of our case with a very imperfect knowledge of the character and location of our injury. How are we to proceed? If the rupture is known to be extra-peritoneal we may drain through the perineum. That will serve for a time, perhaps, as a very inefficient drainage which may prevent any further accumulations of extravasated fluid, but will certainly prove inadequate in most cases, as it did in Case I., for the one object of the operation is the drainage of the urine already extravasated and the drainage of the bladder to prevent further extravasation. Or you may make a prevesical incision over the pubes and drain in that way. If you do you are opening up a dirty cavity full of putrefying urine just previous to opening the peritoneal cavity to search for further trouble there, and you are also contenting yourself with draining in a very imperfect manner an extravasation of urine, the extent of which you know little. The cases to which such prevesical drainage is applicable are those extra-peritoneal ruptures where the rent is anterior and where the extravasation is also sharply limited to the space of Retzius. Unfortunately

we cannot often have such accurate diagnosis at our disposal to aid in the selection of the operative procedure needed. We may make an incision into the bladder (suprapubic) and search with the finger for the seat of the injury, but this must be very uncertain and unsatisfactory in many cases, and even if the tear or tears are found we still shall not have the information we want as to the extent and direction of the extravasation.

So that given the doubtful cases of extra-peritoneal rupture with extravasation of unknown quantity and direction none of the above methods is inadequate. I believe that Case I. of my series died because of the inadequacy of the operative procedure at the time of operation. How then are we to be sure to get to the bottom of things so that when the operation is concluded we know we have intelligently and completely treated the existing condition?

I believe there is only one way and that is to open the abdominal cavity *first* in all doubtful cases as an exploratory measure: search for intra-peritoneal rents, determine the amount of and the direction of the extravasated fluid, and then whenever possible close the abdomen before the prevesical space or other seat of the extravasation is explored.

Now a word to these extravasations; they may extend up on the anterior wall of the abdomen; down around the neck of the bladder; or down one or both sides of the pelvis, under the peritoneum. They may go in one or all of these directions, and it is more often than not impossible to tell early in the history of the case without resort to operative exploration. If this exploration is made over the pubes and an extravasation is found there, it by no means follows that there is not a deep extravasation as well which suprapubic drainage alone will fail to care for. I believe that this was the condition in Case I. of my series and that a laparotomy would have developed the extent of the extravasation and made the most complete and thorough drainage possible.

Dr. A. T. Cabot of Boston deals with this question of drainage in an article called "A Contribution to the Treatment of Rupture of the Bladder" which he read at the annual meeting of the American Association of Genito-Urinary Surgeons in Washington, 1891. I wish to quote a paragraph of what he says on the subject.

"Lastly, comes the question of where to make the incision, and how to place the tubes for the best drainage of effusions in different parts of the pelvis. If the effusion is in front of the neck of the bladder, and the opening has been made into it by the suprapubic incision without opening the peritoneum, the bottom of the effusion should be sought with the finger, and a drainage-tube carried down to it.

"In opening the bladder for drainage in such a case it may be worth

while, if there is evidence that the effusion is making its way backward, to make the lateral perineal cystotomy rather than the median, because in the lateral position the parts about the neck of the bladder are more freely opened, and if the urine finds its way in that direction, it is afforded a sufficient outlet. By the median operation, unless the incision is carried back into the prostate, there is danger that the parts behind the triangular ligament will not be thoroughly laid open, and that any urine which found its way in that direction might not freely escape.

"When, as so often happens, the effusion finds its way along the loose tissue on the side of the pelvis, and as in the case reported in this paper, up along the iliac vessels toward the renal region, perhaps no better incision can be chosen than that which is used for tying the common iliac vessels. In order to give the most direct drainage, and at the same time not to have any more pressure from the tube upon the iliac vessels than can be helped, the incision had better be made rather more toward the median line of the abdomen than is usually done for tying the iliac artery. In this way the tube goes down more directly, and does not make so sharp a bend where it dips into the pelvis over the vessels. If, however, the effusion has already reached up behind the peritoneum, above the brim of the pelvis, the incision must be made further out near the anterior superior spine of the ilium in order to give the best drainage. The finger introduced from this region can penetrate quite readily over the brim of the pelvis, and well down behind the bladder, while the peritoneum separates so easily that a considerable channel can be made, through which the sloughing connective tissue can afterwards discharge itself. Ordinarily, these anterior openings afford tolerably satisfactory drainage for pelvic abscesses, as the intra-abdominal pressure is sufficient to force out the pus even through an unfavorably placed opening.

"In any case in which a suppurating cavity has formed in the bottom of the pelvis, which does not drain satisfactorily through an anterior opening, it is perfectly possible to reach it, and give it good drainage, by adopting the incision usually employed for excision of the rectum, and removing the coccyx and one side of the lower segment of the sacrum. Such a wound as this, which bears the name of Kraske, who uses it for the excision of the rectum, gives thorough access to the lower part of the pelvis, and would give excellent dependent drainage in case of an abscess which was burrowing in that region, and which did not sufficiently discharge itself through the more anterior openings."

In conclusion then, it would seem that there are very few cases of rupture of the bladder, either extra- or intra-peritoneal where a lapar-

otomy is not indicated. It is perhaps proper to formulate these remarks somewhat as follows:

Immediate operation should be performed in all cases where a rupture is known to exist.

In all intra-peritoneal cases immediate laparotomy should be performed and the wound in the bladder sewed up.

In all cases where there is any doubt as to whether the rupture is extra- or intra-peritoneal, immediate laparotomy should be performed.

In all extra-peritoneal cases where there is any doubt as to the direction and extent of the extravasation, laparotomy should be performed at once for exploration and diagnosis, and should be followed by the operation appropriate for the drainage of the case.

There remains only the cases where the rupture is known to be extra-peritoneal and where the extravasation is known to be limited to the prevesical space as the ones where it is safe to drain above or below or both without an investigation of the bladder and its neighborhood through an abdominal incision.

A NEW AGENT FOR THE TREATMENT OF ALOPECIA AREATA.*

BY GRANVILLE MACGOWAN, M.D.,

Professor of Dermatology in the University of Southern California.

THE nature of alopecia areata has never been accurately determined pathologically. It looks like a parasitic and acts like a trophoneurotic affection. It is not unlikely that its origin is a mixed one. It has long been taught in France to be contagious, and the painstaking and extremely valuable researches of Dr. Saboraud,¹ published in Paris two years ago, leave little doubt that many, at least, of the cases clinically diagnosed as alopecia areata, are infectively microbial in their origin, and that the special parasite is his micro-bacillus of the peladic utricle. This finding of ampullæ upon the hair-follicles, stuffed with these minute microbes, justifies the theory advanced by Dr. A. R. Robinson of New York, as long back as 1890, that the disease is due to micro-organisms inhabiting the derma temporarily, and causing local intoxication by their products. Whether purely parasitic, as Saboraud contends, or purely neurotic, as Kaposi and his school assume, or whether, as seems to be the belief of most American teachers of derma-

* Read before the District Medical Society of Southern California, May, 1899

tology, there are two varieties of the disease included under the same clinical cognomen, is not a matter of much importance in the application of therapeutic measures for its cure. Almost every dermatologist of note, except Kaposi and Hyde, has some favorite application to be used for the local treatment of the bald patches, the basis of which, in nearly all instances, is a remedy, or a mixture of remedies, combining local stimulant and antiparasitic properties. These two authors present a striking therapeutic antithesis. Kaposi² dismisses the subject tersely: "Treatment can neither shorten the disease, nor prevent its outbreak in another locality." Hyde³ says: "Nevertheless, persistent and hopeful management of even the apparently desperate cases is occasionally rewarded by such brilliant consequences, that, however slight may be the foundation for a belief in the value of a therapy employed, it deserves recognition and trial." Crocker⁴ favors turpentine, combined with bichlorid of mercury, $\frac{1}{2}$ per cent. J. C. White⁵ prefers a mixture of croton oil and turpentine, 1-28 or 1-64. Bulkley,⁶ pure carbolic acid; Jackson,⁷ chrysarobin for acute, croton oil for chronic cases; McCall Anderson,⁸ repeated blistering; Duhring,⁹ carbolic acid, 10 per cent., in alcohol; P. A. Morrow,¹⁰ repeated blistering or pyrogalllic acid; Robinson,¹¹ croton oil or 15 to 50 per cent. chrysarobin; Neumann,¹² alcohol and ointment of ammon. mercury; Chatelain¹³ iodine-collodion; Besnier,¹⁴ chloral hydrate 5, acid acetic 5, ether 25; Ihle,¹⁵ concentrated tincture resorcin; H. G. Piffard,¹⁶ blistering collodion, vigorous stimulation. Thin, quoted by Morrow and Crocker, sulphur ointment; G. H. Fox,¹⁷ and many of the English school,¹⁸ prefer the remedy of Nevins of Liverpool, a strong solution of ammonia mopped on the scalp, repeated daily. Fox also greatly extols the use of the Faradic current. Many Continental writers praise the expressed oil of mace and the oil of cinnamon, rubbed in pure into the patches. Probably of all these remedies those having the most widespread use are an ointment of chrysarobin, in strength up to 20 per cent., and cantharides in some form of sufficient strength to blister.

I have, at one time or another, in the last nineteen years, used them all in the treatment of alopecia areata, and cannot speak very favorably of any of them, excepting the expressed oil of mace, and glacial acetic acid, which I have been in the habit of using pure. The discomfort of the disease is chiefly a cosmetic one, and I have always felt that, as its natural history shows a tendency to renewal of the growth of hair in the denuded patches, in from three months to two years, we are not justified in rendering our clients unsightly, malodorous, or very uncomfortable by the remedies which we apply to hasten the desired end. If the bald spaces are upon the head, they may be usually concealed by

allowing the hair to grow, combing it over them. If they are in the beard, or upon the hairy lip, it is only by close shaving each day that the disfigurement may be partially concealed. When in the eyebrows, the spots are always noticeable and cause great annoyance.

The use of any ointment daily upon the scalp, or the face, becomes burdensome, and with most people injurious, by reason of its dirtiness. No self-respecting person cares to be smeared about the head or face with an ointment which leaves a disgusting stain, as does chrysarobin or pyrogallie acid—not to speak of the disagreeable and sometimes persistent pustular dermatitis which the prolonged use of these agents, in even weak (3 per cent.) ointments, occasions.

The carbolic-acid treatment advocated by Bulkley has not been a satisfactory one in my hands. My patients complain bitterly of the irritation and pain, coming on sometimes several hours after the application and continuing for one or more hours. In one case what seemed a moderate application upon a tender scalp caused a troublesome slough. Stronger ammonia, I have found, causes a very unpleasant general papular dermatitis, when rubbed vigorously into some skins. To my mind, repeated blisterings are, though undoubtedly effective, unnecessarily severe, and the pustulation by croton oil in strong solution, a measure the use of which in a disease generally acknowledged to have a time limit, is a barbaric treatment unworthy of the dermatological practice of to-day. I do not find the resorcin lotions, or beta naphthol, or bichlorid or cantharidal lotions possessed of any definite curative effect, though all are valuable as antiseptic tonics for the general scalp.

If the theory of Robinson, already referred to, has a foundation in fact, and from the observations of Sabouraud I think it has, then an active parasitic agent, which would cause the rapid exfoliation of the superficial layers of the epidermis, well down into the mouths of the hair-follicles, and possessing sufficient irritant properties to stimulate local phagocytic action, with its accompanying elimination of toxins, should be of great value in the treatment of alopecia areata. We possess such agents in glacial acetic acid, and the expressed oils of mace and cinnamon, and, to some extent, in the iodized collodion of Chate-lain. The ideal remedy should be pure carbolic acid, but, as nearly every one has found who has used it for this purpose, it is too severe. The mixed oils of mace and cassia have been, also, in my experience, too irritating.

One day, while reviewing the literature of alopecia areata, I chanced upon the following sentence in Hyde: "The speediest return of hair the author has ever observed in a patch of alopecia areata followed a single application of pure creosote to the surface, resulting in moderate vesication." Now, one of the drugs I make much use of in my der-

matological practice is trikresol. In most instances where it may be used pure or in the form of a salve it is superior to carbolic acid. It is a most excellent remedy for the destruction of the trichophyton, and my use of it in an epidemic of ringworm, a detailed account of which was made to this society at its meeting last December by Dr. Louise Harvey, may be found in the *Southern California Practitioner*, and this furnished, with the sentence in Hyde¹⁹ quoted above, the inspiration for its experimental trial in alopecia areata. The results I have obtained are such, I believe, as to warrant their publication.

The first application is preceded by thorough cleansing of the patch with benzine. The remedy is applied pure to the scalp, and in 50-per-cent. solution with alcohol to the face, with or without epilation. It is well rubbed into the denuded patches, and into the roots of the hair for a half-inch surrounding each patch, by the friction of a small swab of cotton, tightly wrapped about a wooden toothpick, and causes, immediately, a burning pain, which is readily borne, even by a child if told beforehand that it will hurt a little. This pain passes away nearly always in a few minutes, but sometimes lasts, but not severely, for a half-hour. The skin turns pearly white almost instantly, the hair and sebaceous follicles coming plainly into view, seeming to gape. The primary whiteness is followed in a few hours by a circumscribed hyperemia, occupying the same area. On the scalp there is a very slight transudation of serum; on the face occasionally vesication is more pronounced. Within twenty-four hours there forms a dry, brownish, or brownish-red, superficial scale, which falls in from four to ten days, when a new application is required. When the scale falls, it leaves the scalp hyperemic and more tender than at first, and the remedy should not be applied so vigorously the second time, so as to avoid all unnecessary pain. I have never seen it cause a slough or a scar.

The following nine cases illustrate its usefulness:

CASE I.—January 20, 1895. S. J., banker, 37 years old, vigorous, general history good. Patch of alopecia areata upon chin, 3.5 cm. long by 4.7 cm. broad. There is a similar but smaller patch upon the left temple. These appeared suddenly about three weeks ago. The skin is smooth, pliable, and devoid of hair, except a few lanugoes near the edge.

Treatment.—Epilation of hairs at the edges and the application of the expressed oil of mace and oil of cassia, equal parts. This caused a free weeping of serum and subsequent crusting. These crusts did not fall until early in March, but no scarring was left after them.

March 6th.—The patch upon the chin has improved, but that upon the temple not changed. There is a new patch upon the back of the head, just below the lambdoidal suture, about as large as a half-dollar,

and an oblong, band-like patch on the right cheek, below the right ear, about 3 cm. long and 50 mm. broad. I applied pure glacial acetic acid to all the patches at intervals of two weeks, with at first rapid and then diminishing improvement, until June 1st, when its good effect seemed exhausted. I then made the first application of trikresol. This was followed by a remarkable and continuous growth of hair in all the patches, so that on August 1 he was dismissed, with the bald spots completely covered with a growth of strong hairs of natural color.

CASE II.—May 3, 1895. Robert B., plumber, 19 years old; general health good. Had a light attack of syphilis two years ago, and at that time had the characteristic hirsutic defluvia. He presents now no visible signs of syphilis. He has a number of bald spots, varying in size from a ten-cent silver piece to that of a half-dollar. They are mostly atrophically depressed; the fatty layer seems to have disappeared, but the superficial structures of the skin remain, and are freely movable, smooth, and glancingly shiny. The symmetrical distribution of the lesions is remarkable. Some of the patches are not entirely devoid of hair, and what seem to be healthy hairs grow flush to the edges of all the patches.

Treatment.—Application of trikresol to patches on the right side and of pure glacial acetic acid to those upon the left. These applications were made every fifth day, and the scalp shampooed with Stiefel's tar-and-sulphur soap every fourth day.

June 5, 1895.—The improvement has been so much greater upon the right than upon the left side that I used trikresol for both.

August 25th.—There is a good crop of hair growing over all the spots. Some of the new hair is lighter in shade than that upon the surrounding scalp.

CASE III.—April 22, 1895. E. C., cigar-merchant, single. Had syphilis twelve years ago, but now presents no symptoms of the disease and appears to be in good health, and robust. He has now upon the scalp a number of patches of alopecia areata, which are symmetrical and possess the same appearances of atrophy described in Case No. 2. The mouths of the hair-follicles are depressed, instead of being elevated as upon the natural scalp.

Treatment.—Epilated the sides of the patches, and applied trikresol pure to right side and glacial acetic acid to left side. The improvement was greatest upon the right side after a month, and trikresol alone was used until July 15, 1895, when patient was dismissed cured.

CASE IV.—February 6, 1896. Thomas R., hotel-porter, 35 years, Irish. Is now and has been in general good health. Has had syphilis a few years ago, at which time he had syphilitic alopecia.

He now has two patches of alopecia areata upon the right and left sides of the median line of the scalp, just in front of the vertex. The hairs are noticeably thinner in front of these patches than they are upon the rest of the scalp. He accounts for this by his having had a similar attack of alopecia when a lad of ten years.

Treatment.—Local, consisting of applications of pure trikresol every five days for two months, when the patches were covered with a good growth of hair, and treatment ceased.

CASE V.—December 22, 1896. W. H., a mason, age 39; general good health. No history of syphilis. Three spots of disease in beard. None larger than a 25-cent silver piece. These have been present for four months.

Treatment.—Epilation of hairs at the edges, and application of trikresol, every five days until March 15, 1897, when patient was dismissed, with patches covered with a good growth of hair.

CASE VI.—June 30, 1896. W. B., collector, 38 years old; general good health. Married; never had syphilis. Two large patches of alopecia areata in the beard, the larger one upon the left side. These patches are not entirely denuded of hairs, but contain a few atrophied ones. The denuded skin is smooth and glabrous.

Treatment.—Epilation and application of trikresol, pure, every five days until September 15th, when the hair was so much restored that he ceased coming to see me, in order to save the expense of my fees.

CASE VII.—December 22, 1896. W. H., American, laborer. 39 years old. General health good. No history of neuralgia or syphilis. No evidence of ringworm. Three bald, smooth, atrophied spots on the scalp and one in the beard, having an average size of a quarter-dollar. The disease attacked him suddenly about four months ago.

Treatment.—Application of trikresol every five days. Dismissed cured, February 25, 1897.

CASE VIII.—March 28, 1897. F. C. W., aged 12 years, school-girl. General health good. Not anemic nor neuralgic, and never had ringworm. She has three irregularly bald, smooth patches on the frontal portion of the scalp, each about the size of a quarter-dollar. The first one appeared about two months ago, the other two about two weeks ago.

Treatment.—Application of iodinated collodion, until April 13th, when, no improvement being noticed, trikresol was well brushed into the patches, and the treatment repeated every week until May 29th, when she was dismissed with a good growth of strong hair covering the patches.

My previous experience with alopecia areata had certainly ranged

me with my teacher, Kaposi, as a believer in the inutility of treatment for the shortening of the course of the disease. I had never seen a case in which the bald spots had been recovered with hair in less than four months. From the commencement of the application of trikresol to the time when the patches were fully covered with a growth of firm, good hair, in this series of cases, was, respectively:

Case I., June 1st to August 1st, 2 months.

Case II., May 3d to August 25th, $3\frac{4}{5}$ months.

Case III., April 22d to July 15th, $2\frac{1}{5}$ months.

Case IV., February 6th to April 6th, 2 months.

Case V., December 22d to March 15th, $2\frac{1}{5}$ months.

Case VI., June 30th to September 15th, $2\frac{1}{2}$ months.

Case VII., December 22d to February 25th, $2\frac{1}{5}$ months.

Case VIII., April 15th to May 29th, $1\frac{1}{2}$ months.

This gives an average of about $2\frac{1}{2}$ months, which is certainly so decided a gain over the most favorable results under either the ordinary irritative treatment or that of scientific neglect that it is worthy of remark and report.

Should the experiments of others, in other portions of the world, with this treatment prove equally favorable, then my report will be of value.

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Society Transactions.

NEW YORK ACADEMY OF MEDICINE.

GENITO-URINARY SECTION, JANUARY 10, 1899.

(Continued from page 194.)

Gonorrheal Prostatitis.—Presented by R. H. GREENE.

DR. BANGS said he had also had a case of another sort. He was giving these to the Section just as they were and they could make whatever deductions they liked. He was not going to discuss any question. This man was taken with retention of urine, while at a dinner party in the country. He hastened to New York, and his distress was such that he sent for a neighboring doctor just exactly as he would send for a fire extinguisher. He was promptly relieved and promptly infected, and then had a secondary cystitis. He was in misery and finally had to be drained. The speaker said that he himself was not well last Spring and put this patient in the care of a friend, but was present at the drainage operation. He had an enlargement of the prostate perceptible to the finger and with bimanual pressure you could make out that the prostate was about twice the size of the normal prostate as we are in the habit of regarding it. It could be reduced in size by the manipulation known as massage. The prostate was vigorous, muscular activity considerable, and it unmistakably contracted under the finger. At the time of the drainage operation Dr. Bangs said he inspected that prostate in the bladder. There was a large ring surrounding the neck of the bladder, and as thick as his two fingers. It was vascular looking. He said to the operator: "Now let us see how we can reduce the size of this. I will use my finger in the rectum while you make counter-pressure in the bladder." They did, and reduced the size of that prostate so that the mucous membrane was simply in wrinkles and folds, and apparently to their eyes there was no organic obstruction around the neck of the bladder, apparently a purely vascular condition. Of course they could not keep up that pressure indefinitely, for the wound had to be dressed, but under the short time under their inspection there was no re-increase of the prostate. After the period of drainage and the drainage-tube removed he had precisely the same difficulties, but minus the severity of the infection and the tenesmus, etc.

DR. ALEXANDER said that the character of the swelling Dr. Bangs had spoken of was to his mind a pure edema; that is, it was a serous infiltration of the prostate. He said that one of the most interesting things to him was in trying to get photographs. The moment you took the plate out you found the spot dull red, and then you tried to focus the congestion and the picture of the internal vesical orifice failed to show that area. It was perfectly astonishing how the color disappeared as soon as the plate was taken out, simply on account of the blood running away and the edema subsiding, and he thought that this occurs in life, and that that was the reason why after drainage you got a great amelioration of symptoms. He thought that was one reason why castration did good, was that it relieved to a great extent that congestion.

DR. KLOTZ said that after the remarks made by Dr. Bangs he naturally felt reluctant to take part in the discussion for fear of creating the impression that

he commanded a better knowledge of the prostate gland than he professed to possess. In fact he was in no better position, and particularly since the recent beautiful demonstrations by Dr. Alexander had he felt that we would be obliged to entirely reconsider and revise our opinion of the prostate gland and its pathological conditions. He was inclined to attribute great importance to the accessory prostatic glands, the presence of which was to him at least revealed only by Dr. Alexander's demonstrations.

As far as the examination per rectum is concerned he had for years been convinced like Dr. Alexander, that the shape and the size of the prostatic gland were about as variable as that of the nose. He had made the same statement in regard to the *colliculus seminalis* and in that instance had proved its truth by frequent endoscopic examinations. In the exploration of the rectum the size was not of so much consequence as the tenderness and the consistency of what you felt in the place of the gland, and from that you can judge undoubtedly of the condition of the lobes.

The squeezing out of the secretion of the prostate gland in the way that Dr. Greene described it seemed to the speaker to be a very uncertain thing. Any large quantity of secretion he had seen only in such cases where one of the lobes presented a soft baggy feeling. Then he could usually find a few drops, but where one had increased or natural consistency of the gland he had not been able to get any perceptible secretion as a rule. If you squeezed it out and then let the patient press out a few drops of urine you will obtain the contents of the prostate as well as from all the other glands in that neighborhood and from the mucous membrane, and you cannot tell exactly what comes from the prostate and what not.

DR. LAPOWSKI said he would like to make a few remarks. Some writers of medical papers deemed it necessary to quote the literature concerning their subject. The value of quoting would be doubly appreciated if some criticism of the mentioned writers' communications was added, if some of their statements were viewed with scrutiny. For instance, Dr. Greene quotes the conclusions of Cohn that neither urethritis posterior nor chronic prostatitis in old gonorrheal patients are due to gonococci, only to mixed infection—staphylococci, etc. In the meantime Dr. Cohn does not bring any evidence to show that his patients suffered with gonorrhea when they came under his treatment, or before coming under his care. Maybe they suffered only from chronic simple urethritis and that is the probable reason why he did not find any gonococci. The manner in which Dr. Greene obtained the prostatic secretion was open to criticism. We are not sure in the way Dr. Greene does, if the secretion comes from the prostate. If a man introduces his finger in the rectum and squeezes out the contents of the prostate, sometimes by muscular reflex the glands in the urethra will add their contents to the prostatic secretion, and having such a secretion how can we know whether the gonococcus comes from a gland or from the prostate?

The next point is to examine the secretions of patients suffering with chronic discharges by the aid of the microscope, next by the aid of cultures. Even the most skilful microscopist is apt to mistake a diplococcus for a gonococcus on a stained slide and this fact may supply an explanation regarding the laboratory reports in Dr. Bangs' cases.

As to Dr. Alexander's opinion, that we cannot always find out the exact size of the prostate by digital examination, he would add that not only the size of the prostate cannot always be determined but also the condition, especially the catarrhal condition of the prostate due to gonorrhea, where the digital touch

seems to indicate a healthy prostate, while in reality the prostate is undergoing the initial changes leading to parenchymatous inflammation.

Regarding hypertrophy of the prostate the speaker said that personally he was of the opinion that gonorrhea—whether the gonococcus itself or its toxins—was the prime cause of hypertrophy of the prostate in a great many cases, and Dr. Ciechanowski in his last contribution to the question of the hypertrophy of the prostate emphasizes this point and brings, in the speaker's opinion, sufficient anatomic-pathological reasons to place the point in question beyond doubt.

DR. VALENTINE said that a paper so rich in literary research hardly gave opportunity for discussion. But, as his learned predecessors had shown, it did not preclude some additions. Such as he could offer must come in perhaps incoherent and certainly desultory form. In doing so he should limit himself to some observations on the symptomatology of the disease under discussion. He was surprised that so far as his English reading went, the term "prostatism," suggested by Guyon, had found no place in our literature. Nor had it in the German. This term *prostatism* expresses the conditions that disturb urination, but does not necessarily convey any specific size or special form or shape of enlargement of the prostate. If we could always determine the extent of the hypertrophy by rectal touch, our work would be easier. But as the cystoscope sometimes shows really immense prostatic projection on the vesical side, without much posterior distortion, we cannot rely upon the rectal, the most frequent mode of examination.

Very much has been done for the study of the latter by Mr. E. Hurry Fenwick, who *inter alia* makes clay models of the prostate as he finds it projecting into the rectum. This, however, premises a degree of artistic ability which few possess.

Désnos, in striving to present a better etiological term for prostatism calls the condition vesico-prostatic sclerosis. But as a prostatism does not necessarily imply sclerosis, nor is dependent upon conjoined bladder and prostatic involvement, the term prostatism remains, to his mind, the speaker said, as the best for the symptom-complex so designated by Guyon.

Indeed, Edgar Chevallier showed that women may suffer similar symptoms. These he described under "*Prostatism chez la femme*" in the *Annales* about two years ago.

Rochet of Lyon, in an exhaustive work just published in Paris, groups the whole condition under the title of "Senile Dysuria."

DR. VALENTINE said that the interesting paper they had just heard surprised him from the fact that but 66 per cent. of the author's gonorrheas invaded the prostate. A paper recently published by Wossidlo of Berlin, in the *Journal of the American Medical Association*, makes the percentage of gonorrheal invasion of the prostate nearer 92. In many of these cases the posterior urethra was apparently not involved at all. He holds it possible for the *materies morbidæ* to travel over the posterior mucosa innocuously, to find perhaps a more favorable culture-medium in the prostate. He further holds, if the speaker's memory quoted him correctly, that gonorrheal involvement of the prostate is more than likely to occur in claps not due to the gonococcus alone, but those in which the discharge showed a mixed infection.

Although not quite directly bearing upon the Chairman's paper, the speaker asked to be allowed to submit two cases, which illustrated the need of still further studying this important subject. In April a colleague of his sent a man with acute prostatitis and cystitis. The discharge from the penis contained

numerous gonococci. The doctor wrote that he had long been suffering from prostatism. Twenty years before the patient had a suppurative orcho-epididymitis, which left each testicle little more than a small cicatricial lump in an atrophied scrotum. To-day his physician had sent the patient to him again for examination; the prostate was distinctly enlarged, but offered no special inconvenience; the bladder retained no residual urine and he had to urinate but once at night. This case could hardly be offered as an argument for castration in prostatism.

Another of Dr. Valentine's cases had a single attack of gonorrhea twenty-five years ago. Since then he procreated two healthy children. When examined he had no shreds in the urine and but slight dysuria. The prostatic secretion expressed by massage contained distinct groups of gonococci.

In neither of these cases were the wives infected. Similar experiences conveyed to the speaker the possibility that there were people immune to the gonococcus.

The speaker said that, as he had said before, the interesting paper they had just heard, presenting in the main literary research, offered little opportunity for discussion. It, however, gave much food for thought and made one anxious for its successor, which the author had promised.

DR. ALEXANDER asked if he might say one word to answer Dr. Lapowski, who had made a statement about the recent work of a countryman of his, which by Dr. Lapowski's courtesy he had been able to read, that he was quite sure that when the abstract was published it would convince us that inflammatory disease of the prostate was primarily the cause of enlarged prostate. The speaker said he might say that after reading the abstract he was not yet convinced, nor did he believe that any man could be convinced on the autopsy of thirty cases when there was among those many negative instances which were not explained, and, therefore, from simply a logical standpoint he was afraid they would not be able to accept that in quite the dogmatic way in which Dr. Lapowski had laid it down.

DR. GREENE said he thanked the gentlemen very much for their discussion, and that the only positive opinion which he expressed in the paper, the only positive conclusion, was the one at the end of the paper in which he said he was convinced from the work he had done, he was confirmed in that conviction by the literature he had read, that urethritis acts in the male, as in the female, generally attacking the tissues beyond the anterior urethra in the male, as in the female it attacks the uterus, tubes, or ovaries. Further than that as regards positive conclusions the speaker said he had not stated that he had come to any. He had said that he believed that those swellings of the prostate (although he found that when he said swellings of the prostate that other people would not agree with him as to the swellings) never entirely disappeared in some cases. The reason that he had for that belief was, among others, from a case he has had under his occasional observation for eight or nine years, a man in Washington, who originally gave a history of acute posterior urethritis, had apparently a chronic posterior urethritis when he first saw him eight or nine years ago, and now had a typically enlarged prostate, prostatic hypertrophy, and had to use a catheter continually. Another case he had had under observation many years originally had a marked swelling on one side of the prostate with posterior urethritis. The man occasionally comes for examination, the posterior urethritis is well, the prostatic enlargement remains.

DR. GREENE said he agreed with Dr. Alexander that you could not tell the exact size of the prostate by examination by the rectum. He did not think one

could do so probably in any one given case. He had here, however, a large number of cases, 214, and he believed in as large a number of cases as that, there would be some correspondence between the size of the prostate and the way in which the prostate felt by the rectum, although he did not wish to go on record as stating that rectal touch alone was sufficient to determine the size of the prostate.

The author said he agreed generally with the remarks of Dr. Bangs and followed a long way after Drs. Bangs and Alexander in trying to learn all he could about those conditions of chronic inflammation about the neck of the bladder.

As regards what Dr. Klotz said, that he (Dr. Greene) was unable to get the secretion from the prostate in these cases, but got the secretion of some accessory gland, here again the author said he must refer to the number of cases in which he massaged the prostate, although he was sorry they were not more numerous. He could possibly conceive that in any one given case although he had carefully washed out the bladder and then massaged, he might get a secretion from some accessory gland, but when in twenty cases, twenty cases which had had most full and exhaustive examination by an expert bacteriologist and practically the same results in all were obtained, he did not believe he did get a secretion from some accessory gland. He believed he got it from the prostate. The diplococci were found in three cases, in three cases only.

The author, as he said before, thanked the gentlemen very much for their discussion but it had not altered the conclusion which he still held, that in urethritis we had an inflammation which in the male generally involved organs beyond the anterior urethra, as in the female it generally involved besides the vagina the urethra, uterus, tubes, or ovaries.

A Case of Suppurative Prostatitis.—DR. GUITERAS said he was sorry he had not had his case here at the proper time. The patient was a very interesting one as he presented a condition that was rarely seen. He came to the clinic suffering from urethritis. It was a rather sluggish affair, unaccompanied by any particular pain or inconvenience. He urinated rather frequently but with pain and tenesmus. One evening he came to the clinic with a bottle containing a fluid resembling raspberry juice with sand in the bottom, the latter filling one-quarter of the bottle. He examined him per rectum but could not feel any prostate. There was no trace of any prostatic body or its outline. The assistants at the clinic examined him and also noticed its absence. The urine on examination showed large quantities of pus, prostatic tissue, blood, and also streptococci and gonococci. The patient was treated by urethral irrigations, internal urinary antiseptics, and his prostate was massaged, or the place where the prostate ought to be. That was about three weeks ago. Since that time he had examined him every week and besides a little thickening that one could feel over a sound there was no trace of the prostate. Accordingly, thinking that it would be an interesting case for the Section, he had agreed to bring him here to-night; but just now on examining him he had observed that the prostate was reappearing, which tended to show that massage could reproduce the gland in some degree. He had observed a number of times small prostates and he had noticed those prostates enlarge on massage, and he thought the only way it could be explained was that the adhesions which had formed had loosened, thus liberating some of the prostatic lobules, that had been compressed, and that those resumed in a measure their former function. At any rate this man had no prostate two weeks ago and now you could feel a slight thickening there.

NEW YORK ACADEMY OF MEDICINE

SECTION ON GENITO-URINARY SURGERY, STATED MEETING HELD ON TUESDAY,
EVENING, FEBRUARY 14TH, 1899.

G. K. SWINEBURNE, M.D., *Chairman*.

PRESENTATION OF INSTRUMENTS.

French Gum Elastic Catheters.—DR. CHETWOOD said that the catheters which he presented had attracted his attention because he believed they represented an improvement in manufacture. The difficulty in sterilizing the gum elastic instruments was generally recognized, and the purpose of the manufacturer had been to make an instrument which could be boiled. The claim that these catheters could be boiled he had verified by boiling one instrument for one-half hour for seven consecutive days, and, while he could not say that this improvement had been perfected yet, they seemed to be better than any catheters of the kind which he had seen. . . . While the boiling did not destroy the catheter, it seemed to dull the luster and polish somewhat, yet here were catheter and bougies which could be used after being boiled, as stated, as they did not become brittle and the polish was only altered to a very slight extent.

DR. CHETWOOD also showed some new Nelaton catheters. He said the introduction of the solid end was welcomed, as it removed the pouch at the end, and the instruments were thus more readily cleansed. Those made in this country he found had a tendency to swell several sizes after being boiled, and also became covered with little spurs when left in soak for some time, which greatly impaired their smoothness. He found upon testing the ones presented, which were made in France, that they stood boiling admirably well, and did not swell.

Dermoid Cyst of Testicle—DR. MANLEY presented a specimen.

The patient was 61 years old, carpenter by trade; ten years ago he fell from a ladder and injured his scrotum. A slight swelling appeared, which gave him some trouble for a time. He was told he had rupture. He put on a truss. It gave him inconvenience, and after a time he took it off. The swelling rapidly increased in volume from year to year, until finally he had to give up his trade, and became more or less invalided. The mammoth tumor of scrotum advanced as far downward as the line of the knees. It was such a great weight that he could not get about without having a harness arrangement from his shoulders, through which was attached a suspensory bandage that carried this vast enlargement. When he came under the speaker's observation he was considerably reduced in health. He had no chronic disease, but he was feeble. He came to him in the summer and in very hot weather. On examination it was found that this mass was semi-solid, and that it was part hernia, if it were not all. He made a very careful examination of the enlargement, in a strong light, and finally applied a long aspirating-needle and found that the mass was cystic. He found that there were apparent differences in both sides, because the fluid varied in color and consistency on each. The fluid was of a brick-dust color, and on removal he found that the aspirator carried considerable thick substance with it of a granular character; some particles of broken-down hairs, different epithelia, fragments of bone-tissue and cartilage, those elements commonly found in teratomata. The speaker was further led to the conviction it was not hydrocele by the fact that the testicle on the left side was found on the anterior surface,

and on the right side that it lay posterior to the swelling. It was, therefore, evident that this was neoplastic. The question of operation arose. In this connection it is very interesting to bear in mind that a considerable number of those cases set down as hydrocele and treated as such are not hydrocele at all, but are cysts. The question in operation here was as to how they should be dealt with—by free surgical operation, large dissection and complete enucleation of the cyst, or by some conservative method of opening and draining, thus destroying the epithelial lining of the cyst and obliterating it in that way. He decided to approach the case by free incision, evacuation, and a thorough irrigation, spraying of the lining with some strong, irritating fluid. After making the incision he found on the left side that the sac was very thin and elastic. From this he evacuated a little over a gallon of fluid. The weight of tumor was $14\frac{1}{2}$ pounds. At the base of the sac, very probably a couple of inches at least in thickness, was a deposit of a substance very similar to what we find in a dermoid cyst of the ovary—a putty, sandy substance. On the right side he found a very thick cartilaginous wall, so when he evacuated there it did not collapse. He decided to drain very freely, and hoped it would become gradually detached, and as it presented itself in the large, free incision to gradually enucleate the cartilage. The line of procedure happily terminated very satisfactorily. The left side became completely obliterated; on the right side the cartilaginous envelope was gradually detached and completely removed. After evacuation there yet remained a fulness on the right side. This he found was a small inguinal hernia, which could be quite readily reduced. Three months after operation the speaker said he succeeded, after the sinus had completely closed, in putting on a truss, which controlled the hernia. The patient was in very good condition at present time. The penis was restored, and the patient was in a vastly improved condition, compared to what he was at the time of operation. He was now working in his carpenter-shop. His health was fully restored, and in every way he was very much improved.

Gumma of Testicle.—DR. MANLEY presented a testicle, which he had removed from a patient for Dr. Frazer Buchanan, two weeks ago. The patient was a sea-captain, who was injured in a storm—thrown from the hurricane-deck, and in falling suffered an injury to his scrotum. Three years ago a swelling commenced. Two years ago he had the swelling tapped, and considerable fluid evacuated. Six months ago the testicle began to enlarge again. The surface inflamed at different points and gave issue to pus. The discharges were carefully examined. No tubercle-bacilli were found. The patient's general health was good in every particular, but this tumor, although indolent and painless, was a source of annoyance, because it gave issue constantly to more or less pus, which collected principally about the penis, and in hot weather rapidly decomposed and gave rise to odors. It presented none of the characteristic features of malignancy, none of the elements found in medullary cancer of the testicle. On the other hand, he gave a history of having had syphilis, and tuberculosis and malignant disease having been eliminated, the question arose as to whether it was not gumma. It was the speaker's opinion that it was gumma. However, in looking up the literature of the subject, he found gumma of the testicle on one side a very rare condition. After removing it he made several microscopical examinations. He found that the glandular structure had entirely disappeared. Nothing remained of the secretory structures, which were now almost entirely fibrous. The peculiar history of the case and the characteristics it presented, he

thought, justified his submitting it to the Section, particularly with a view of confirming his diagnosis or making another. If it was not gumma, he would like to have the opinion of the Section as to what it probably was.

DISCUSSION.

DR. KLÖTZ said the specimen looked to him like a gummatous, or rather like a syphilitic testicle. About two years ago he had presented a similar specimen here, which he had removed from a young man. It was more fibroid in character, but on careful examination Dr. Schwyzer, the pathologist of the German Hospital, found changes in the blood-vessels more or less characteristic of syphilis, and claimed the condition was a syphilitic one. In that case one side only was affected. The speaker did not think the unilateral occurrence would be a sufficient reason for doubting the diagnosis.

DR. STURGIS said that from the appearance of both specimens it was, of course, very hard to determine anything in regard to it. The history of the case seemed to be very vague as far as syphilis was concerned. In his opinion it was more likely to be a fibrous degeneration of the testicle than anything else. He was rather surprised to hear Dr. Manley say that in looking up the literature of the subject he had found it was very seldom syphilis of the testicle occurred on one side only. He thought it was rather the other way.

DR. MANLEY, replying to Dr. Sturgis, said he did not say that syphilis of a single testicle was uncommon, but he understood that suppurative gummatous disease of a single testicle was uncommon. He had been led to believe that from making a brief review of the literature of the subject. This specimen had been in strong alcohol, which, of course, had contracted and hardened it, but on microscopical examination it was found filled with small cysts.

DR. STURGIS said he should take issue with Dr. Manley, if he understood him correctly in saying that unilateral syphilitic inflammation is more uncommon than bilateral. He believed, with most of his genito-urinary brethren, that it was quite common. He thought it was much more likely to be unilateral than bilateral.

DR. MANLEY said that that was just exactly the point; that very fact that unilateral was said to be so rare, that was the point he wished to bring out.

Presentation of Pathological Specimen of Ossified Plaque of Corpora Cavernosa.—DR. CHETWOOD presented a post-mortem specimen of ossification of the corpora cavernosa, taken from a man 55 years old at the time of his death, and which had existed for ten years. The condition of ossification in the corpora cavernosa from investigating the literature on the subject seemed to be something of a rarity. Demarquay reported a specimen which was in the Pathological Museum at Vienna, and apparently very closely resembled the one presented. There was a somewhat analogous condition spoken of as the fibroid sclerosis of the penis, in which there was an induration apparently almost as firm, cases of which had been reported quite frequently abroad and in this country. The first mention of this condition was made by Kirby of Dublin. In this country it was originally referred to in the first edition of Van Buren and Keyes. Since then a number of cases had been reported. Dr. Keyes had seen twelve or fifteen cases, and in 1897 Dr. Taylor read a paper before the Section on "Fibroid Sclerosis of the Penis," giving a survey of the literature and a general study of the subject. Whether this condition of ossification of the penis was another process or another stage of fibroid degeneration he did not feel qualified to give an opinion upon; but the noteworthy fact was that in a great many cases reported

by Tuffier or Verneuil of France there seemed to be a number in the clinical history of which there existed gout or diabetes. This man from whom the specimen had been derived was a diabetic, and had died from that malady. The condition, as shown upon pathological examination, revealed that it was a true ossification, extending from the base of the penis up to the glans, where there was calcification.

DISCUSSION.

DR. F. M. JEFFRIES said, regarding Dr. Chetwood's pathological specimen of ossified plaque of corpora cavernosa, that when the specimen was first given to him it was supposed to be a simple fibroid induration, but as soon as he cut into it he discovered that there was something more than that. It was very hard, dense, and compact, and required decalcification before it could be cut. The first portion he selected was at the base of the penis, the main portion of this condition. When sections were obtained he found it was simple ossification. There was nothing in its relationship with the surrounding tissues to give any indication as to its origin. He later on concluded to go down towards the glans and see what its beginning was there. In this portion he found he still had to break the tissue rather than cut it, and he ran it through the decalcifying process, and, much to his surprise, found it to be a simple calcification in place of an ossification. He felt from his side of the case that it was a fibroid induration followed by ossification, yet he had been unable to find in the literature of the subject any example of ossification following fibroid induration. Still, the history—a man 55 years of age, with diabetes, etc.—would lead one to suppose that from the condition of his arterial system we might have a fibroid induration; we might expect it as we do in the various conditions of arterial sclerosis. He consulted one or two friends of his who were interested in the fields of pathology, and he found that theories were at variance. One felt it was a neoplasm. He himself had not felt so. We know, in the first place, that in some of the lower animals there is bony tissue normally in the penis. From the fact of this calcification in the glans penis he was more inclined to believe that we had a fibroid induration followed by a simple ossification. He had the specimen that was taken out of the glans, and they could see in that the band going down just about as far as the section included. The microscopical section of that now showed nothing but dense, fibrous tissue where the calcification was. He felt that beyond the conclusion he came to there was little more to be said. He was rather anxious to hear a discussion as to its origin.

DR. JOHN F. ERDMAN said that about ten years ago he saw a case like this, and since that time he had seen another. The plaque removed from the first case was about $1\frac{1}{2}$ inches long by $\frac{3}{4}$ to $\frac{1}{2}$ wide, and possibly $\frac{3}{16}$ of an inch thick. That evidently was a calcified condition of a previous fibroid condition. The second case he saw he was unable to obtain permission to operate on the man, and could only say, from a clinical standpoint, that it resembled very much the first.

DR. BROWN asked Dr. Chetwood what was the man's clinical history.

DR. CHETWOOD replied that he had had the disease for twelve years; died at the age of 55.

DR. BROWN asked if there was any deformity about the penis, and if the erection of the organ had been in any way abnormal.

DR. CHETWOOD replied that he thought this man's history was that it had started ten years prior to his death as a simple induration at the base of the

penis and progressively and gradually enlarged. It did not interfere with the shape of the penis at all, nor with the urethra. Cystitis and diabetes were recognized as existing at the time.

He said regarding the specimen he had presented that, unfortunately, of all the cases reported very few had been extirpated so as to make a pathological examination. The only other one found on record was that of Verneuil of France, examined by Leloir, found to be composed of tissue similar to that of keloid. The principal point he wanted to bring up was that there seemed a variance of opinion among those who had observed these cases as to whether the ossification was a distinct and separate condition, or whether it was simply an advanced degree of an original fibroid degeneration.

The Use of the Urine Segregator in the Diagnosis of Diseases of the Urinary Tract.—DR. M. L. HARRIS of Chicago read a paper and exhibited the instrument devised by him.

DR. HARRIS said that when he presented the instrument before the Surgical Section he presumed that the gentlemen were familiar with the instrument, but he had learned that he presumed too much. He had supposed that the fact that there were several dozens of the instrument in the city in the hands of the profession that all were familiar with it. The purpose of the instrument was the separate collection of the urine from the kidneys. The principle was very simple. By the instrument, with the lever in rectum or vagina, we raise a septum in the base of the bladder. A double catheter is introduced into the bladder, the beaks of which are rotated about its longitudinal axis. Thus, the opening of each catheter receives the urine as it escapes from the ureter, passing into the catheter and at once into the respective vial. The urine as fast as it escapes from the ureter is immediately taken up by the catheter and passed into the vials. There is no accumulation of urine whatever in the bladder, but the bladder remains empty continuously, the urine passing at once, as it escapes from the ureter, into the vials. The speaker said he had the technique of the use of the instrument written out, if the Section would like to hear it, and he asked the pardon of two of the gentlemen who were present the previous evening and had heard the same paper.

The technique of the use of the instrument was not difficult, and he believed that all of the errors or failures due to its use which had come to his knowledge, where used in proper cases, had been due to some failure in technique.

The patient should lie on a flat table, shoulders and hips on same level, legs flexed and feet on level with hips.

The bladder should be irrigated with sterilized water. He allows 150 cubic centimeters of fluid to remain in the bladder to facilitate the turning of the wings within the bladder. The forked piece is attached to the instrument at its proper point before introduction. The openings of the catheters are closed with rubber tubing to prevent the escape of fluid during the adjustment of the instrument. The catheter should be accurately held in the median line, while the lever is inserted into the rectum or vagina (according to the case, until the perforation in the lever is within the forked piece and fixed at the proper hole by the small pin. (In the female the first or second perforation, in the male one of the lower perforations.) The lever should be kept horizontal.

The catheters are gently rotated to their fullest extent and held by the small spiral spring. The large spiral spring is now caught in one of the notches in the lever, sufficiently to produce moderate pressure. The whole apparatus is gently

withdrawn until resistance on the part of the tissues is felt. The fluid is then allowed to escape from the bladder and the vials and hand-bulb are attached.

The urine should be allowed to flow till the fluid in the catheters has been replaced by it, and the first portion discarded. The aspirating bulb should be used with the greatest gentleness, and after the flow has been started its use can generally be dispensed with further.

The urine generally begins to flow immediately, sometimes several minutes elapse before flow begins. After it begins it goes on with regularity. The flow is always intermittent, sometimes the kidneys alternate, sometimes they act synchronously. The flow is by drops.

The amount of urine collected in a given time varies.

If the urine flows from each side, we may be certain that two kidneys exist, but if there is a flow from one side only we cannot immediately conclude that there is but one kidney. The fluid of the other may be temporarily or mechanically suspended. A movable kidney, an intermittent hydro- or pyonephrosis during obstruction, a calculus blocking the ureter, are some of the causes.

By the instrument we may determine the location of the pathological process, whether in the bladder or kidney, whether one or both kidneys are affected. The value of the instrument in the diagnosis of affections of the bladder depends upon the fact that by its use we are able to eliminate temporarily the bladder from the upper urinary tract.

By comparing the urine taken from the bladder just before the examination with that obtained by the instrument from the kidneys we are able to determine which constituents are of vesical and which of renal origin.

The weight of the patient, and the time occupied in collecting the urine should be noted.

The urine from the two sides may differ in degree of acidity. A comparison of the analyses of the urine from the two sides will show whether the diseased condition be unilateral or bilateral.

Renal calculi are unilateral in 80 to 85 per cent. of cases. According to Israel, of all suppurative affections of the kidney, one-third are tubercular and one-fourth are primary renal tuberculosis, and of his cases in 87.5 per cent. this affection was unilateral. The author has found that a certain percentage of so-called cases of Bright's disease may be unilateral.

Of great importance is the determination of the amount of work done by each kidney as well as to determine which kidney is involved. The amount of work done in a given time the author terms "functional capacity."¹

The instrument should be left in place at least thirty minutes, if possible.

The importance of knowing the "functional capacity" of the supposedly healthy kidney before removal of supposedly diseased one was shown in the citation of a case of death following nephrectomy, in which the instrument had shown a purulent urine coming from one kidney and a perfectly clear urine from the other. The autopsy revealed the fact that the supposedly healthy kidney was an atrophied one, and if the functional capacity had been determined, it would have shown that the kidney was incapable of performing sufficient work to sustain life.

In the majority of cases no anesthetic is necessary, sometimes cocaine may

¹ For complete explanation of "functional capacity" see *Med. Record*, April 1, 1899, p. 460.

be of advantage, unless the bladder is ulcerated, and, in painful cystites, with spasmodic contraction of the bladder an anesthetic may be found necessary.

The instrument may be found to be inappropriate in cases with bladder growths which bleed easily, in contracted or distorted bladders, cases of vesicle calculus, excessively enlarged prostate, etc.

DISCUSSION.

DR. F. TILDEN BROWN said it seemed hardly right to permit the important demonstration the Section had enjoyed at the hands of Dr. Harris to pass without free discussion of the subject of separate urine collection, and the relative merits of the various methods of accomplishing it. He said he should take very little of the time of the Section, because he had had such an opportunity to express himself last night, when Dr. Harris presented this topic and his instrument before the Surgical Section of the Academy.

The trend of his remarks then was to ascribe to the Harris instrument a simplicity and general scope of applicability which did not pertain to others; and to criticise it only on the ground of being possibly less positive and hence less reliable in its results. But as all he had said about Dr. Harris' instrument was based upon theory, he hoped, by using, in the immediate future, the urine collector which he had possessed for several months, to discount his criticisms. Thus far he had not even given it a trial, mainly because he had found the use of Brenner's ureter-cystoscope so satisfactory and simple. To be certain that the urine gathered was surely what it purported to be, he liked to see the catheter not only enter the ureter, but emerge from it after the collection had been made. By the valuable information and the diagnosis had from the careful examinations by Dr. Sondern of urines gathered in this way he had been more and more impressed with the great value of this method of study of the individual organs of the urinary system. Since with Dr. Harris' instrument such investigations appeared to be accessible to nearly all he felt that every progressive physician and surgeon would now possess and utilize this instrument.

DR. CHERWOOD said he would like to ask Dr. Harris a little more fully regarding the use of his instrument in prostatic cases. He had specified that it was unsuitable in some cases of excessive prostatic enlargement. Had Dr. Harris had much experience in prostatic cases generally with his instrument, because he thought it an exceedingly important point sometimes to establish the location of suppuration in connection with pyuria, whether it was derived from the bladder or kidney on one or both sides. His cases were very striking and seemed, he thought, to be largely, and, perhaps, in the majority of instances, females. Was it not easier to use the instrument in the case of females than males? He thought it would be an improvement if the instrument could be so constructed so as to allow it to be taken apart, especially the catheter arrangement, for, although it could be sterilized by boiling the mere cleansing with hot water might not thoroughly wash out some elements left in the previous examination and might lead to the occurrence of errors in diagnosis.

DR. SONDERN said he would take the liberty of saying a few words, as the subject in question was of great interest to him.

Ever since the introduction of the Casper and other instruments for the separate collection of urine, some years ago, he had seen, he thought he might say, very many specimens, sent him for examination, through the kindness of a number of gentlemen. Since the introduction of the new instrument by Dr. Harris he had also obtained quite a number of specimens collected by its use.

What he might say in reference to the examinations was, however, limited strictly to the laboratory procedure. He had not had personal experience with the use of any of the instruments devised for that purpose, consequently did not know the difficulty or the ease with which the different instruments were used, except from what he had been told. To repeat, he spoke simply of the laboratory examination of the obtained specimens. From his point of view the use of the Harris instrument would seem much simpler than that of the other procedures. Dr. Harris told us that his instrument was not suitable in all cases. On the other hand, by the other methods occasionally one was not able to get a catheter into one of the ureters, and on that account no urine was obtained.

In consideration of the less difficult technique, and the fact that in many, if not most cases the specimens obtained by the Harris instrument were satisfactory for clinical deductions, the range of the instrument was large. On the other hand, in view of his laboratory experience with the specimens, there existed in his mind no doubt but what in a smaller or larger number of cases the results from the use of the Harris instrument were inferior to those obtained from the use of the direct catheterization methods of Casper, Kelly, etc.; and in a few cases the specimens obtained by the Harris method were quite unreliable. It was of these unreliable specimens per Harris instrument that he would speak. Three of these had come to his notice during the last few weeks.

The first were separately collected specimens per Harris instrument, from a young woman. The amounts from both sides were alike. On the right side, all the evidences clearly indicating a pyelo-nephritis, but no tubercle bacilli. On the left side, a perfectly normal urine, containing many tubercle bacilli. Conclusions: Decidedly unsatisfactory. Subsequent use of Kelly method: Right pyelo-nephritis. Left, normal kidney, no tubercle bacilli; the tubercle bacilli obtained by Harris' instrument evidently picked up from a tubercular bladder ulceration not far from the left ureter opening. The second, were separately collected specimens per Harris instrument, from a man with a history of gonorrheal infection; the speaker did not know what symptoms he presented. One tube gave 35 c.c., the other 8 c.c., both in twenty-five minutes. Both specimens agreed precisely in gravity, amount of urea, albumin, etc., with all the microscopic evidences of a gonorrheal pyelo-nephritis. What deduction was justified? With his experience with no small number of those specimens, he should say "*none*." Direct catheterization of the ureters would be necessary to reach a trustworthy conclusion.

The third, were separately collected specimens per Harris' instrument, from an elderly woman, losing flesh and strength, with occasional bloody urine. Both specimens were absolutely normal, excepting that the one supposed from the right kidney contained numerous shreds of an undoubted epithelioma. Fortunately the examiner was not satisfied. Subsequent cystoscopy and ureter catheterization by Kelly method proved the kidneys to be normal, and the carcinoma in the bladder and not in the kidney as the Harris' instrument led us to infer.

The speaker said these remarks were made in the proper spirit. The only point he wished to bring out was, that the Harris instrument had its limitations like any other instrument or device.

Dr. EISEBERG said it had been his privilege during the last two months to have used this very ingenious instrument of Dr. Harris a number of times. He deemed it a privilege to have been able to hear Dr. Harris' paper this evening, and he wanted to give expression to his admiration for it. He had arrived

too late to hear the whole paper at last night's meeting of the Surgical Section.

He had made some investigations with the instrument, together with Dr. H. Goldenberg at his class in the Out-Patient Department of Mt. Sinai Hospital. The first results they obtained with the urine-separator were very encouraging indeed. They made the following experiments with the instrument: After the instrument had been introduced into the bladder of a patient they injected sterilized water colored with methylene-blue into one of the straight catheters. It was injected slowly so that the fluid escaped through the curved branch of the catheter at the same rate at which it was injected through the straight branch. Not a drop of fluid escaped from the catheter of the other side. They then injected two fluids, one colored with methylene-blue and the other with fuchsin, into the straight tips of the catheters of both sides, so that the rate of inflow and outflow was about the same. The fluids that escaped from the curved branch of each catheter showed us that there had been no mixing of the fluids in the bladder, but that each catheter had drained off the fluid from its side. When, however, the fluids were injected with such force that the bladder became distended, the fluids then became mixed. In a similar manner they injected into the catheters alkalized water on one side and sterilized water containing a few drops of phenolphthalein on the other side. When the fluids were injected slowly, so that they could be drained off from each side by the respective catheters as rapidly as they were injected, they found the instrument did its work to perfection. Had there been the smallest amount of leakage from one to the other side in the bladder, they should have gotten the characteristic pink color that is present when a solution of phenolphthalein comes in contact with an alkaline solution. Both fluids remain clear. With a similar result they injected a solution of ferric-chlorid on one side and a solution of potassic ferro-cyanid on the other. They got no Prussian-blue reaction, showing that the separation of the fluids in the bladder was perfect as long as the fluids were drained off from each side as quickly as they entered the bladder, so that this organ was not distended.

In one case, in which there was disease of one kidney, the instrument demonstrated it beautifully. The speaker said he was very hopeful about this new instrument, from the results they had obtained, for with this simple instrument, an instrument which could be used by any one, examinations of the separated urines from the kidneys would become much more general and our knowledge of renal diseases thereby much advanced.

They were unfortunate enough, however to meet with a case in which the results they obtained were incorrect. He had arisen to-night in order to relate this case briefly, and to ask Dr. Harris for a possible explanation of the results obtained.

The patient was a young man, about thirty years of age, whose left kidney had been removed for pyelo-nephritis by a prominent surgeon of this city about one year ago. Two months after the operation the patient began to pass cloudy urine again, without any bladder symptoms at all. The urine contained pus and albumen, and the physician, under whose care he was, believed that the other kidney had become diseased. The patient was referred to them finally for examination with the urine separator.

It was almost impossible to wash out the bladder so that the fluid returned clear, and they at once suspected disease of the bladder, although the patient gave no vesical symptoms, nor did his urine contain more than a very few epithelial

cells, pus, and albumen. He might say here that they had an exact account of the operation on his kidney, which told them that that organ had been removed in toto. With the urine-separator of Dr. Harris they obtained from the right catheter 18 c. c. of perfectly clear (and on examination) normal urine in ten minutes. The right kidney was, therefore, healthy, and not diseased as had been supposed by the physicians who had previously treated the patient.

From the left catheter, however, they obtained 13 c.c. of fluid in the ten minutes. This fluid was turbid; it contained albumen and pus, urea, and uric acid. They thought that, perhaps, the instrument had not been correctly introduced or manipulated, and hence tried it at two other sittings. But each examination gave them similar results. They always obtained some fluid, which contained urine from the catheter which was draining the side on which the kidney had been removed, and from which they should have obtained no urine at all.

The patient's prostate was very slightly enlarged, he might say. Here was a case, then, which gave manifestly incorrect results with the urine-separator—a case that had made them doubt the general applicability of the instrument.

In this patient one should have expected valuable results from the use of the instrument, but, unfortunately, it was found wanting altogether. It showed them that the right kidney was normal, but how could one explain that the catheter drained off a fluid containing the urinary constituents from the left side? He might add that the escape of urine from both catheters was synchronous and intermittent.

DR. HARRIS said, in regard to the first question, the use of the instrument in prostatic troubles, that he had used it a few times in prostatic enlargement. They all knew that the prostate was enlarged in various shapes and sizes. Some of them would not interfere with the use of the instrument, while others might. An enlargement of the so-called central lobe would be very apt to interfere partly with the use of the instrument, if the enlargement were great. As he had stated, the prostatic enlargements usually interfered with the use of the instrument. They had to select their cases very carefully to obtain good results.

In regard to cleaning the instrument, he had considered many times all the suggestions made in regard to having the instrument so as to be taken apart. About every one of them had such serious objections to it that they had all had to be discarded. If it *could* be taken apart they would still have the long tube to clean. With our straight tube there we can introduce a stylet through it. The method he used in cleaning the instrument was, he thought, simple and very effective—simply use the rubber stopper. Of course, the tube going into the air-bulb was never contaminated with urine. This tube they always wanted to clean, consequently he put this tube on the end of the catheter. He held this rubber stopper up against the hot-water faucet, which it blocked, and then turned the stream of hot water through the instrument, which washed it out very thoroughly. For example, they could hold it there as long as they wished. It forced through it as strong a current as they wished. Take the opposite stopper and do the same on the opposite side. If the tube became stopped or it was necessary to use a straight tube, pass your stylet down. Any attempt to have it come apart—these parts to screw on—would have very serious objections. If you had the instrument in the bladder and a screw came off, then it would necessitate an operation for its removal, so that the objections were so serious and the advantages to be gained so slight, it did not seem advisable to put any of the suggestions into use.

In the examination of specimens Dr. Sondern stated that he had no knowledge of how those specimens were obtained, consequently his examination and his criticism were defective. Most of the errors in the use of the instrument came from the failure in some point of technique. His first case, he said, he found tuberculosis in one specimen and not in the other. That in itself was no objection to the use of the instrument, because it might have been correct. As was generally well known, the presence of pus was not always accompanied by tubercle bacilli, and they were very difficult to find, and numerous examinations must be made before they were found; that he found them in one side and not in the other was no indication they did not properly belong in that side. They might have been in the other if he had examined more specimens, or it might have been accidental. He did not state whether the bladder was filled with fluid, so the instrument did not touch the wall, so it could scrape off anything.

In that case where he found a few, 5 c. c. of urine, which came from one side, about 30 were taken from the opposite side, he did not say the instrument was properly placed in the bladder when the bladder contained the urine and the urine was allowed to evacuate through the tube. Now, in using the aspirator, the urine contained in this tube and in this catheter would be aspirated into the vial. He did not know that was washed, as it should always be, and whether the fluid was allowed to escape or not, consequently examinations made from the laboratory were defective, because it was not known how they were collected.

DR. SONDERN said he was afraid Dr. Harris did not quite understand him. In the first case, subsequent cystoscopy proved that the tubercle bacilli *must* have been scraped off; the same applied to the third case. In the second case he mentioned that it took *twenty-five minutes* to collect the 5 c. c. as well as the 35 c. c. on the other side.

While, of course, the speaker's position did not allow him to refute what Dr. Harris had said as to faulty technique, at the same time he was in position to know that the gentlemen who collected these specimens, being peers in genito-urinary surgery, certainly had mastered the simple technique of the instrument in question.

DR. HARRIS said that the next was the Doctor's case of no kidney. There were two explanations for that case. He asked if Dr. Elsberg knew that it was tuberculous.

DR. ELSBERG said that they were told that the report of the pathologists left it undecided.

DR. HARRIS asked if he knew that the kidney was entirely removed.

DR. ELSBERG said that it was entirely removed.

DR. HARRIS said that the ureter was probably left, and it was undoubtedly diseased. The fluid which contained the pus escaped from that.

DR. ELSBERG said that the fluid from the left side contained 7 grains of urea to the ounce; the other side contained 11 grains of urea to the ounce. Where did the urea containing fluid on the left side come from?

DR. HARRIS said another explanation was that it had been found a number of times there were two ureters opening on one side and one on the other, one of them being bifurcated. In that case they would obtain an erroneous deduction from the use of the instrument.

DR. ELSBERG said that the cystoscopic examination was made afterwards. It could not be a thorough examination, because it was absolutely impossible to get the bladder clean; but the ureteral opening on the right side was found, and no

ureteral opening found on the left side. There were several small, very deeply congested areas, one looking just like an ulcer. Above the lesions, where one would expect the ureteral opening, there was a small white spot that looked like an atrophied area of the mucous membrane of the bladder, as one occasionally sees it. He did not catheterize the right ureter on account of the suppuration in the bladder.

DR. HARRIS said that the fact that the normal kidney afforded urine showed that the instrument worked all right, and the urine was uncontaminated from the bladder, and that the kidney was normal.

NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SEVENTY-FOURTH REGULAR MEETING, HELD ON DECEMBER 20, 1898.

DANIEL LEWIS, M.D., *President, in the Chair.*

(Continued from page 188.)

A Case of Erythema Induratum.—Presented by DR. BRONSON.

The patient was a girl, sixteen-years old. The eruption had first made its appearance six years previously. In its general characteristics, it resembled Bazin's *érythème induré des scrofuleux*. This patient, however, showed no evidences of strumous disease, and there was no history of tuberculosis in the family. She was well nourished, robust, with rosy cheeks. The individual lesions are indurated, more or less subcutaneous at first, and become purplish in color as they approach the skin. During the warm weather the disease is inclined to remain quiescent, the lesions losing their purple color, and becoming white, like the healthy skin to relapse again in the same places on the approach of winter. In one place a nodule had broken down leaving scar tissue. Dr. Bronson said the only other disease with which this eruption could be confounded was syphilis, and it would hardly be possible to have a syphilitic eruption remain in one location for six years without undergoing more marked changes.

DR. ALLEN said he concurred in the diagnosis. He did not regard the eruption as syphilitic. The general appearance and broken-down condition of the lesions led him to believe that the diagnosis of indurated erythema was correct.

DR. FORDYCE also concurred in the diagnosis. If the lesions were tubercular in character, they must have resulted from a very attenuated form of virus. The speaker referred to one case coming under his observation where the lesions commenced as subcutaneous nodules and gradually broke down, subsequently healing under cod liver oil. In the case under discussion, the lesions healed more rapidly than we should expect in tuberculosis.

DR. JOHNSTON said that in connection with the subject, the work of Audry of Toulouse, the report of which was recently published (*Annales de Derm. et de Syph.*, 1898), was interesting. In order to ascertain whether these cases were tubercular in character or not, the writer made inoculation experiments, unsuccessful in every instance. Tubercle bacilli were not found. He failed to take into consideration, however, the hypothesis that diseases of this character, if they are tuberculous, are so in the sense that they are produced by the toxins of the bacilli, rather than by the micro-organisms themselves. In many of these

cases of indurated erythema, but not all, an attenuated virus is probably at the bottom of the trouble, the site of the lesion being determined by the asphyxia of the extremities, a point of lessened resistance.

DR. BRONSON, in closing, said we were not very familiar with this affection in this country, as examples of it were very rare. The case under discussion was, he thought, the first classical case that he had seen. At first he had been inclined to doubt the diagnosis, on account of the apparently excellent general health of the patient, and her good family history. There was absolutely no history of tuberculosis in the family. The old term "strumous" might still be applied to this class of patients, for want of a better name. The speaker said he was inclined to doubt that manifestations of this character were due to an attenuated toxin of the tubercle bacilli; histologically, there was no connection between these conditions and tuberculosis.

A Case of Lichen Ruber.—Presented by DR. BRONSON.

The patient was an old man, with an eruption of long standing, confined to the feet, legs, and forearms. An interesting feature of the case was the hypertrophic condition of the lesions in certain places, more especially about the feet and ankles, resembling there the conditions sometimes associated with syphilis. There were no other evidences of syphilis, however. Dr. Bronson said he regarded the case as one of localized lichen ruber, or pityriasis rubra pilaris. There was marked itching in the places affected. The primary lesion as could be discerned at the periphery of the hypertrophic patches as well as distinctly on the arms was a milium papule with a horny, almost spinous apex. The affected surface felt rough like a nutmeg-grater when the hand was passed over it.

DR. GEORGE T. JACKSON said he was sorry that he could not concur in the diagnosis. The verrucous condition shown on the legs of the patient is apt to occur where there is more or less interference with the return circulation, as in syphilis, elephantiasis, and chronic eczema. He thought that the eruption in lichen ruber would not be apt to be confined to the lower extremities. The conditions met with on the thighs where the hairs were wanting and the skin was rough might as well be due to want of cleanliness leading up to a keratosis pilaris. The patient was old and dirty.

DR. WHITEHOUSE said that when he first examined the lesions on the foot, they suggested the clinical features of Darier's disease, which is sometimes limited to the feet, including the soles. The lesions on the inside of the knees, however, and the evidences of the beginning horny papules on the dorsal surface of the fingers in Dr. Bronson's case tended to confirm the diagnosis of pityriasis rubra pilaris. The more typical features of that disease would probably develop later.

DR. ROBINSON, who had received from Dr. Bronson two sections of lesions in this case for microscopical examination, said he had not yet had time to complete the examination. So far as the anatomical characteristics of the sections went, they were exactly similar to those described a few years ago by Dr. Taylor in his case of pityriasis rubra pilaris, although that does not necessarily decide the question of diagnosis. There was much thinning of the epidermis. There were no evidences of a catarrhal dermatitis, so eczema could be excluded.

DR. FORDYCE said the appearance of the lesions about the knees and fingers was strongly suggestive of pityriasis rubra pilaris. Those on the feet and ankles, however, were totally different from any he had ever observed occurring in that disease. Some of the large nodular lesions on the inside of the foot resembled

those in the speaker's case of so-called hypertrophic lichen planus. Dr. Fordyce said he knew of no distinction between pityriasis rubra pilaris and lichen ruber; he regarded them as identical.

Dr. JOHNSTON asked Dr. Robinson if the sections which had been submitted to him showed any increase of pigment.

Dr. ROBINSON replied that they did not.

Dr. JOHNSTON said that in spite of the localization of the lesions their appearance was strongly suggestive of acanthosis nigricans.

Dr. BRONSON, in closing, said sections had been examined microscopically and they showed very little pigment. In their localization, the lesions certainly did not conform to what we usually see in lichen ruber. The speaker said he had forgotten to call attention to an eruption on the patient's arms which was quite similar to that on the legs and felt rough to the touch, like a nutmeg-grater. There were no lesions on the trunk. Dr. Bronson said he was unable to say whether the hyperplastic lesions on the foot and ankle were a part of the same process as those higher up about the knee. He could only infer that they were from the fact that immediately adjacent were multitudes of the fine acuminate horny lesions corresponding exactly to those found higher up and on the arms.

A Case of Erythema Multiforme.—Presented by Dr. BRONSON.

The patient was a young man who had come under Dr. Bronson's observation a few days previously. He had a generalized eruption, erythematous in character, the lesions consisting of irregular patches, with gyrated outlines, and inclosing areas of healthy skin. The eruption had existed about one week. The patient's general health was excellent. There was no history of any toxic condition, but Dr. Bronson said he presumed the eruption was of toxic origin, the nature of which he was unable to discover. The eruption had greatly improved during the past few days. When he first saw the patient, the eruption was peculiar and striking, the lesions resembling scroll-work and being as clearly outlined as though tattooed with some red pigment.

A Case of Pompholyx.—Presented by Dr. BRONSON.

The patient was a young man about 20 years of age, and had suffered from his present ailment for several years. The palms and fingers (palmar and lateral aspects) were the parts affected. The eruption would begin as red spots or patches upon which soon bullæ developed, the fluid in which had been ascertained to be alkaline. At the present time there were simply reddened spots with desquamating surfaces, the sites of recent bullæ.

A Case of Papular Syphilide.—Presented by Dr. BRONSON.

The patient was a middle-aged woman, with an eruption of a fine papular character which was confined to the lower extremities, just below the knees. The lesions were abundant in these regions and for the most part showed a grouped arrangement. They were of a dusky red color and in their evolution and involution resembled the course of a syphilide, though the process was a slow one.

The eruption had existed for two or three years, and had been very intractable, anti-syphilitic treatment having but little influence upon it. There was reason to believe that the patient's husband had had syphilis and that the disease had been communicated to his wife some five or six years ago.

Dr. FORDYCE said that, while the case was probably one of syphilis, it was rather unusual to see a syphilitic eruption remain localized so many years.

A Case for Diagnosis.—Presented by DR. FORDYCE.

The patient was an elderly woman, with an eruption which had first made its appearance about three months ago. It was first vesicular and bullous in character, and was attended by a great deal of itching and burning. At present, the eruption consists of numerous grouped vesicles and bullæ situated on a hyperemic surface, and surrounded by inflamed areas of skin. The extremities and trunk are involved. The patient suffers from chilly sensation, and has an evening rise of temperature. In the grouping and multiform character of the lesions the case resembles dermatitis herpetiformis. The speaker, however, was inclined to the opinion that the affection should be called pemphigus.

DR. JACKSON thought the case was one of dermatitis herpetiformis. The intensely itchy erythema, the grouping of the vesicles, and the chronicity of the disease correspond with Dühring's description of the multiple form of dermatitis herpetiformis.

DR. KLOTZ also regarded the case as one of dermatitis herpetiformis, which often bears a close resemblance to pemphigus; in fact, these cases were classified under that name in former times. The speaker called attention to the fact that no lesions occurred on healthy skin, as in pemphigus.

DR. WHITEHOUSE said the features of the case were fairly typical of dermatitis herpetiformis, as we now understand that disease. Dr. Robinson also regarded the case as one of dermatitis herpetiformis.

DR. SHERWELL advised that the urine be examined. In a large proportion of the cases coming under his observation the urine contained sugar.

DR. BRONSON said that, while some of the features of the case were quite characteristic of dermatitis herpetiformis, others were equally characteristic of pemphigus. There was probably some central cause which had produced these skin manifestations. The grouping of the lesions in many places corresponded to that of dermatitis herpetiformis, and this may have been the original disease, with subsequent development of pemphigus.

DR. ALLEN thought the case was one of dermatitis herpetiformis. In a case which had come under his observation a few days ago there was considerable edema about the legs and feet, with an erythematous area which covered the backs of the legs from the knees down, and was the site of numerous bullæ, some of very large size. The urine contained neither sugar nor albumin.

DR. JOHNSTON said that, in regard to Dr. Bronson's double diagnosis, the query would arise, whether this disease ever terminated in pemphigus? This is doubtful, as no one has ever seen such a condition.

DR. ROBINSON referred to the close relationship between pemphigus and dermatitis herpetiformis, and the decided effect, as a rule, of arsenic in both of these forms of eruption.

DR. FORDYCE, in closing, said that in the case he had shown some of the bullæ seemed to spring from healthy skin. As long as we have no knowledge regarding the origin of either dermatitis herpetiformis or pemphigus, it is reasonable to suppose that we may have intermediate or transitional stages of these eruptions. Dr. Fordyce said that, personally, he did not think there was much difference between certain cases described as dermatitis herpetiformis and others as pemphigus. Some would call such an eruption pemphigus, others dermatitis herpetiformis. Both may depend on a common cause. The urine in this case showed a deficiency of urea; this same deficiency was noticed in a case which he reported last year, but in that instance the urine also contained a small amount of albumin.

A Case of Feigned Eruption.—Presented for DR. GEORGE T. ELLIOT by Dr. JACKSON.

The patient was a young girl with an eruption on various parts of the face and body which first appeared after the excision of a fibroma from the leg six months previously. The manifestations of cutaneous disease have appeared in accordance with suggestions as to locality, shape of lesions, etc., and as to the necessity of working instead of allowing herself to be supported by her father. The question arises, with what does she produce the lesions? Either carbolic or dilute nitric acid is possibly used: a yellow stain on her undervest suggested the latter. The patient has several sisters who likewise will not work for themselves. The lesions are mostly red areas, without bullæ or crusts. There had been some bullous in formation and then crusting, but the majority of the spots were glazed in appearance and suggestive of the use of some acid.

DR. ALLEN said he thought the eruption was of artificial origin. The circular and irregular form of the lesions did not correspond to any type of known disease with which he was acquainted.

DR. BRONSON said that the appearance of the eruption certainly gave rise to the suspicion that it was an artificial one. The peculiar angular outline of the lesions differed from any known spontaneous eruption.

DR. SHERWELL also looked upon the case as one of malingering, and referred to a similar one which had come under his observation. The patient was a married woman, of a very nervous temperament, who had been treated for her trouble for eight months by a very sympathetic physician. She used carbolic acid to produce the lesions, and as rapidly as they disappeared in one locality, she would produce them somewhere else. On sealing up some localities, as for instance the arm, in the case referred to the lesions soon got well without other treatment.

DR. JOHNSTON said that he had been informed that after the excision of the fibroma from her leg, the wound was closed with silk sutures. A few days later it was discovered that the sutures had been torn out. In regard to her eruption, she had been told that the lesions would probably appear in a certain locality, and the next time she was seen it was found that the lesions had appeared in that exact region.

A Case of Psoriasis of the Nails and Ulerythema.—Presented by DR. ALLEN.

The patient was a young man with psoriasis of the nails, together with psoriasis of the body. There was also circumscribed patches of ulerythema sycosiforme upon both cheeks following an acne vulgaris.

Selections.

CUTANEOUS DISEASES.

A Case of Erythromelalgia, with Microscopical Examination of the Tissue from an Amputated Toe.—S. WEIR MITCHELL AND W. G. SPILLER (*Amer. Journal of the Med. Sciences*, vol. 117, pp. 1-13, 1899).

The clinical history of a case, with microscopical examination of the tissues removed (toe) is given by the authors.

The sections of nerve-fibers were hardened in formalin and stained by Weigert's hematoxylin method. The nerves of the great toe were intensely degenerated. The nerve-bundles were composed almost entirely of connective tissue; here and there in a longitudinal section one, two, or three fibers stood out distinctly from the light background of connective tissue; but even these nerve-fibers exhibited irregular segmentation of the myelin. In transverse sections hardly more than three or four nerve-fibers, with axis cylinders and medullary sheath, may be seen in a nerve-bundle, and in some bundles no nerve-fibers at all are found. The connective tissue about these bundles was much thickened. The smallest fasciculi were entirely degenerated. The media of the vessels was thickened and the intima was intensely proliferated, so as nearly to close the lumen. The walls of the veins were also thickened. From these findings and a masterful review of the literature the authors conclude that they are justified in attributing the symptoms in this instance to peripheral neuritis, but in some cases the involvement of the sensory fibers anywhere between the spinal cord and the peripheral ramifications is capable of causing erythromelalgia.

A Case of Erythromelalgia.—GELPKE (*Correspondenzblatt f. Schweizer Aerzte*, January, 1899).

The patient was a nine-year-old boy, of highly neurotic temperament, in whom beginning symptoms of meningitis and cardialgia had appeared. There appeared on his hands and feet first red spots and discrete nodules, with great pain in their neighborhood. Swelling increased until fissures and ulcers were formed; finally, fingers were lost as in leprosy. After six months of treatment, coincidently with improvement of the nervous condition, pain disappeared and the ulcers healed.

Erythromelalgia in Diseases of the Spinal Cord.—JAMES COLLIER (*Lancet*, August 13, 1898).

The author details the history of ten cases—six in conjunction with multiple sclerosis, two with tabes and one each with myelitis and traumatic neurosis. From the study of these and other reported examples, he concludes that erythromelalgia is not an idiopathic, vasomotor neurosis but a symptom-complex pathognomonic of disturbance in the central nervous system. The character of the peripheral changes is best denoted by the "vascular crises."

Erythromelalgia.—JAMES CARSLAW (*Glasgow Med. Jour.*, December, 1898, p. 438).

The patient, a woman aged 24, was admitted to hospital, suffering with gastric symptoms and anemia. After temporary improvement under treatment, relapse occurred, and the legs began to swell. The swelling was painful and did not pit on pressure. There was elevation of surface temperature. The feet were unaffected, but the disease extended up the thighs. The sensations of pain and heat later appeared, without swelling in the upper extremities. The condition was aggravated by a dependent position of the parts.

Acne Keratosa.—II. RADCLIFFE-CROCKER (*British Journal of Dermat.* vol. xi, pp. 1-6, 1899).

The author reports four instances of the disease, all in female patients. Finger-nail sized, well-defined, excoriated patches covered with hard, blood-stained crusts situated on the cheeks and chin, especially near the angles of the mouth, were observed in all the four cases. They commence as a red, firm, tender lump, on which a pustule usually forms and dries into a scab. The patient removes the scab from an irresistible desire to squeeze or pick out soft or horny conical-like plugs about a twelfth of an inch long, which give rise to great irritation. The lesions are usually symmetrical. When the plugs have been extracted the lesions heal, leaving scars. The plugs may reappear, keeping up the disease for years. The horny plugs are comprised of epithelial horny cells with a few prickle-cells and cell-nests. No histological examination of the involved tissue is reported.

Clinical and Histological Researches in a Case of Idiopathic Atrophy.—P. COLOMBINI (*Monatsh. f. Prakt. Derm.*, xxviii, pp. 65-73, 1899).

According to the author, the following case is the sixth on record. The patient does not give either a family or personal history. On the morning following an exposure to a sudden change of temperature, she noticed red patches of various sizes upon the extremities. The patches in a period of seven months spread over the thighs, upper extremities, and trunk. With the appearance of new patches, the old ones changed their aspect, the skin getting thin, dry, and wrinkled. The patient grew sensitive to cold and to the slightest touch; to this a constant itching was added. On examination the skin was found to be deprived of its elasticity and it could be picked up in large folds without their flattening out. The color of the skin was dark-red, and the openings of the hair-follicles could not be distinguished. Through the skin a net of subcutaneous veins is seen. The finger-nails are visibly thinned, but not otherwise changed. The power of motion is not diminished. Cold did not induce goose-skin. The secretion of sweat (pilocarpin) was not reduced, but the function of the sebaceous glands was greatly diminished, producing the dryness of the skin. The sensation of touch is not diminished, neither are the sensations of warmth, pain, and taste. The glands of the neck, arm-pits, and groins are enlarged, hard, movable, and painless. The mucous membranes and internal organs were normal.

Histological changes: The horny layer is not so compact and is thinner than usual; the granular layer is also thin and there is hardly any transition stage between the horny cells and those of the rete. The prickle-cell layer is atrophied, the cells being diminished in size and atrophied. In the skin proper the capil-

laries are dilated, the papillæ are shortened and flattened. The oblique muscles are entirely gone, while the erectores pilorum have only partly disappeared, leaving small, thin, atrophied bunches around the hair-follicles. The elastic tissue especially, is involved in the process, although the bundles are not entirely destroyed, but the fibers are not so thick and their number is diminished. No changes were observed in the ends of the nerves. No parasites could be found. Investigation of the blood and cultures gave negative results.

Transplantation of Skin, and the Origin of Pigment.—LEO LOEB (*Medicine*, vol. v, pp. 177-183, 1899).

In order to ascertain the conditions which favor the growth and development of transplanted tissue and the origin of skin pigment, the author made experiments upon the ears of a guinea-pig. Grafts were cut with a razor, taking as little connective tissue as possible. Where white skin was removed, it was replaced by black, and pigmented skin by white grafts.

White skin was invariably shed, in some cases at the end of a few days, and in others a longer time was required, while black skin, planted in a defect from which white skin had been removed, grew into its new position and established permanent connections with the underlying tissues, and from its results the author concludes that in guinea-pig's black skin can be successfully transplanted while the white cannot.

In grafting, the author usually left a little space between the edge of the transplanted piece and the neighboring skin. Regeneration began soon, and after several days the two edges could be seen approaching. Under the microscope each layer is seen to meet exactly the corresponding layer opposite. From his experiments the author concludes that skin pigment is a product of the metabolic activity of the epithelial cell, and that there is an essential difference in the structure and functions of white and pigmented epithelium.

The Treatment of Lupus Erythematosus.—HEBRA (*Wien. Med. Wochenschrift*, pp. 13-15, 1899).

A very simple convenient method of treating lupus erythematosus is suggested by the author, who claims to have obtained very good results with it. The method consists of an external application of alcohol to the affected parts by means of cotton. The alcohol, without rubbing or pressing is brought repeatedly in contact with the diseased surface. The alcohol is allowed to evaporate and the procedure is repeated several times daily, the oftener the better. Owing to the cold and the withdrawing of water produced by the alcohol, the vessels are contracted, the patches grow less visible, and the elevation and edema disappear. He combines absolute alcohol with sulphuric ether and spirits of mint in equal parts. The use of soap must be avoided during the treatment.

A Case of Leuconychia Combined with Koilonychia.—LEO FORCHEIMER (*Dermat. Centralblatt*, vol. ii, pp. 34-37, 1898).

The case described by the author is the sixth case published. The disease primarily appeared on the nails of both second fingers when the patient was six years of age. At present, after a lapse of eleven years, the first, fourth, and fifth finger-nails of the right hand are involved. The whole surface of the nail is bluish-white in color, the side ridges are thickened and raised, giving to the upper

surface of the nail a concave instead of a convex shape. The toe-nails are in good condition; the hair is normal, but the teeth are of a grayish black color.

Microscopical unstained sections gave clearer presentations than stained sections. Examining the sections by transmitted light, the nail substance was traversed by darkish band-like figures, containing in the upper and in the middle portions of the nail-point-sized areas filled with air. Reexamined by reflected light, the former shiny surface appears dark and the bands are of white bluish color. No parasites were found in the nail substance. There was no abnormal softness of the nail substance present, to the contrary, the microtome had to overcome a considerable resistance in cutting the sections. The author looks upon leuconychia as a disease *sui generis* due to a congenital debility of the general integument.

GENITO-URINARY DISEASES.

Anatomical Studies of Atony of the Bladder in Old Age, also of So-called "Hypertrophy" of the Prostate and of Some Forms of Atrophy of the Same Organ.—STANISŁAW CIECHANOWSKI (*Przegląd Chirurgiczny*, vol. iv, p. 1, 1898).

The conclusions of the author are based upon sixty cases of post-mortem with microscopical examinations of the organs affected. In the first part the author tries to decide how far the opinion of the French school, which attributes mostly all changes in the genito-urinary organs in cases of "prostatism" to the arteriosclerosis, is justified. In the second part the pathological histology and the causes of "prostatic hypertrophy" are considered. He comes to the following conclusions:

1. The clinical symptoms of "prostatism" are due to various anatomical changes and do not depend upon one general cause. Arteriosclerosis especially, cannot be regarded as the cause of the anatomical changes in the kidneys, bladder, and prostate.

2. The atony of the bladder is due to the atrophy of the muscular tissue of the bladder, while the hypertrophy of the connective tissue takes place only when "prostatism" is accompanied by a chronic inflammation.

In case of the presence of a mechanical obstruction to emptying the bladder, the vesical atony is partly produced by this obstruction; and when the obstruction is removed the functions of the bladder will be normal if the proportion between the muscular and connective-tissue elements did not undergo a marked alteration.

3. The modifications of the structure of the bladder walls is increased with the age of the patient. They are accentuated when a mechanical obstruction in micturition is present, and are especially aggravated when to the two foregoing causes a chronic inflammation is added. In some cases the three causes are present, but in other cases two causes or even one is sufficient to produce the anatomical changes and clinical symptoms. In analyzing a case, we have to consider every one of the three factors.

4. Hypertrophy and atrophy of the prostate have a common anatomical cause: proliferation of connective interstitial tissue. The localization and the degree of the process determine whether a hypertrophy or an atrophy of the organ will take place. If the proliferation of connective tissue occurs in the median portion of the prostate in the vicinity of the main excretory conduits, an obliteration of the ducts with a consecutive dilatation of the peripheral segments will follow. In

some cases the inflammatory process in the glands themselves add to the increase of the volume of the organ.

When the modification of the prostatic stroma takes place in the peripheral parts of the organ, the glands will be compressed, obliterated, and finally atrophied. Finally the organ will be diminished in size owing to the retraction of the formed cicatricial tissue. But there is a variety of prostatic atrophy which is simply due to the involution of glandular tissue. The histological resemblance of the two processes suggests a common etiological factor, which provokes the one or the other process according to the locality involved. The author sees in blenorrrhea the probable cause of dystrophy of the prostate.

Clinical Notes upon the Contour and Consistence of a Thousand Prostate Glands.—E. HURRY FENWICK, F.R.C.S. (*Brit. Med. Journ.*, p. 395, 1899).

In examining the prostate, the author, as a routine position, prefers to have the patient bent at a right angle over a table or with his hands resting on a chair, with the bladder empty. Where the patient lies on his back, the prostate will be found higher up in the pelvis, and, therefore, not so accessible to the examining finger.

In urinary tuberculosis, in a large percentage of the cases, the examination of the epididymis and the prostate lends some aid to the diagnosis of the case. In 157 male patients a deposit was found in the epididymis in 21 per cent. of the cases, in 24 per cent. in the epididymis and prostate, in 3 per cent. in the prostate and seminal vesicle; in the prostate alone, 3 per cent.; in the prostate and bladder (the latter by the cystoscope) 6 per cent. So that in 58 per cent. of all the cases a deposit could be detected by the finger on the first visit.

The text-books are indefinite and inaccurate as to the forms which the prostate assumes in tubercle. The "shotty" prostates described by some are found in only 3 per cent., and are of grave import. Massive indurations of prostate and seminal vesicles described by others are found in 5 per cent. of the cases, and generally denote septic inflammation in addition to tubercle. The vesicles may become affected before the prostate in 14 per cent., but this is not common in the early stages.

In watching a case from year to year it will be found that the deposit passes through a variety of stages, and according to the stage, so is the character and contour of the deposit in the prostate, vesiculæ, and epididymis.

Tuberculous deposit is met with in the prostate under three clinical conditions: In young males who have noticed merely a lump in one epididymis; in young males who have symptoms similar to those produced by stone in the bladder; or in the adult male who complains of symptoms like those of stone in the kidney. In class I., the patient may present a small, painless lump in one epididymis, and in the prostate on the corresponding side a small, insensitive lump may be found near the sulcus, partly buried in the upper third of the lobe.

In class II., the patient may complain of pain at the end of the penis after urination, with undue frequency and occasional hematuria; the urine is lightish and murky from pus. By the rectum a hard knot may be found, buried in one of the lobes of the prostate, and the cystoscope will show that the bladder base is affected. The corresponding epididymis will also in time become the seat of a similar indolent nodule. Such prostatic deposits may remain indolent, or calcify, or become absorbed.

The indolent epididymal nodule may become inflamed, impetus being derived from a gonorrheal attack or trauma. The knot in the corresponding lobe of

the prostate may also present a condition similar to that in the epididymis, and may project sharply into the rectum. Further, the rectal mucous membrane over it may become adherent, and then puckered, and it may soften in one spot. The inflammation may extend to the corresponding vesicle. The author is inclined to believe that inflammatory exudation tends to retard the progress of the tubercular disease.

These indolent deposits, according to the author, rarely suppurate of their own initiative. By the absorption of the deposits the prostatic contour and consistence are greatly altered, the lobes become flattened, the consistence leathery, and the outlines confused. A second important point is, that where tuberculous infiltration in the prostate has once occurred, even though healing takes place, the process extends by definite routes. This route generally begins in one epididymis (21 per cent.), then extends to the prostate, corresponding side, into the base, and around the corresponding uretial orifice in the bladder, and then into the corresponding kidney. The route may short-circuit from epididymis to kidney. The process usually keeps to the side on which it started, though a cross-route may be taken from epididymis and prostate of one side to opposite kidney. The route may be in the reverse direction, from kidney to bladder, to prostate and epididymis of corresponding side, or by cross-route to opposite side, or by short-circuit from kidney to epididymis.

The author strongly condemns bladder irrigation in tuberculous cases, even where there is pus in the urine, and even though there be temporary relief. The patient, in the end, pays too dearly for the temporary improvement.

Complete Acute Retention of Urine in a Prostatic.—HÉRESO AND DE GÉRY
(*Annales d. Mal. d. Org. Génito-Urin.*, p. 154, 1899).

The authors detail the history of a case of enlarged prostate, 74 years old, with acute and complete retention, who had previously had no urinary accident for ten years, and no previous venereal history. At that time he had had a similar attack, and after ten days of catheterization and lavage he had left the hospital. Except that from time to time he passed a catheter to wash the bladder, his condition was practically normal. He did not rise at night to urinate, though there was a slight weakening of the stream. Just before his second entrance to the hospital he had, without warning, his second attack of acute retention, and the physician called to relieve him produced a false passage. On entrance to the hospital a styleted catheter only could be introduced, and a catheter was left in place for eight days, and then withdrawn, when the patient was able to catheterize himself. He could, moreover, urinate spontaneously. The urine remained clear.

This interval of ten years separating two attacks of acute retention in a prostatic, although a long term, is not exceptionally rare, and Professor Guyon has shown that such intervals may be the natural history of prostatias. The authors report seven similar cases from the records of the Necker Hospital, in which the intervals were from four to ten years, and draw the interesting deduction that such cases, if operated upon for their first retention by any method calculated to reduce the prostate, would be reported as cured. They further emphasize the importance of the best method of catheterization, which can be conducted even in the presence of a false route—i. e., by means of the styleted catheter, curved or bent (*coudé* or *bi-coudé*), which is made to hug the superior wall, according to rules laid down by Professor Guyon, and they report only one case, in four years, occurring in his service, in which bladder-puncture was necessary, and no cases of cystotomy for this accident. This latter procedure is deprecated in the extreme, and only to be performed as a last resort.

Editorial Notes.

UNNA DERMATOLOGICAL PRIZE.—This prize was not awarded in the years 1897 and 1898, no essay of sufficient merit having been submitted. Dr. Unna has, therefore, most generously offered the accumulations of these years, with an additional 300 marks, making 900 in all (\$225.00), as a stimulus for research in the line he has chosen. The subject he has selected is: "Whether, and to What Extent, the Specific Stains for Elastin Are Applicable in the Case of Elacin." Competition is open to the world, and we see no reason why the distinction should not come to this country. Essays should be sent before December 1, 1899, anonymously to Leopold Voss (Hohe Bleichen 34, Hamburg).

INTERNATIONAL ATLAS OF RARE SKIN DISEASES.—There is danger of this praiseworthy enterprise failing for lack of support. Its income is entirely dependent upon subscription, and it is hardly fair to expect editors or publisher to carry on the work at a loss. It is hardly necessary to call attention to the unique place the publication occupies in our literature and to the debt dermatology owes it. We will gladly receive and forward subscriptions to Leopold Voss, or they may be sent direct to him. The price per part is \$3.00. A new one has just appeared, which will shortly be reviewed in these pages.

CORRESPONDENCE.—We should like to call the attention of the JOURNAL'S readers to the interesting letters which appear from time to time in it, a feature which it shares with no other publication in the same lines. These letters have contained case reports, points in diagnosis and in treatment of considerable value, which the writers are too busy, or regard as not worth while embodying in an extensive exposition. They are appreciated, as the readers have taken the trouble to say, and, being short, they will always receive early publication. We respectfully request a continuance and extension of the practice of letter-writing to the Editor.

PRELIMINARY PROGRAM OF AMERICAN DERMATOLOGICAL ASSOCIATION.—The twenty-third annual meeting of the American Dermatological Association will be held at the Hotel Walton in Philadelphia on May 30 and 31 and June 1, 1899.

The following papers have been promised:

1. The President's Address, by Dr. John A. Fordyce of New York.
2. A Contribution to the Study of Blastomycetic Dermatitis, by Dr. J. N. Hyde of Chicago.
3. A Contribution to the Histopathology of Epidermo'ysis Bullosa, by Dr. G. T. Elliot of New York.
4. Two Epidemics of Alopecia Areata in an Asylum for Girls, by Dr. John T. Bowen of Boston.

5. Epithelioma as a Sequel of Psoriasis, and the Probability of Its Arsenical Origin, by Dr. M. B. Hartzell of Philadelphia.

6. Necrotic Granuloma and Indurated Erythema in the Same Subject, by Dr. James C. Johnston of New York.

7. Remarks on the Treatment of Scabies, by Dr. S. Sherwell of Brooklyn.

8. Report of a Case of Congenital Dermatitis Herpetiformis, with Almost Complete Absence of Nails of Fingers and Toes, by Dr. S. Sherwell of Brooklyn.

9. Demonstration of Ringworm and Favus Cultures, by Dr. S. Pollitzer of New York.

10. A Maculo-Anesthetic Lepride of the Palm, by Dr. D. W. Montgomery of San Francisco.

11. Imperfect or Deficient Urinary Secretion, as Observed in Connection with Certain Diseases of the Skin, by Dr. L. D. Bulkley of New York.

12. Report on Some Cases of Bilateral Linear Nævus, or So-Called Nævus Unius Lateris, by Dr. I. Dyer of New Orleans.

Besides these papers, there will be a general discussion upon "The Rôle of Pus Organisms in the Pathological Processes of the Skin." The discussion will be opened by Drs. George T. Elliot of New York and T. C. Gilchrist of Baltimore. "11

The morning of the third day of the meeting will be devoted to the exhibition of clinical cases, pictures, and microscopical and pathological specimens.

GEO. THOS. JACKSON, Secretary.

CANCER NUMBER OF THE LONDON *Practitioner*.—The April issue is given up entirely to a consideration, in its various aspects, of this vital and increasingly pressing question, original communications occupying it to the exclusion of everything but the Editor's "forewords." The phases considered are the statistics of cancer, its frequency and nature, medical geography, local distribution, etiology and histology, cancer in the lower animals, surgery, and treatment of inoperable cases. Roswell Park and W. B. Coley hold a proper place in the notable list of authors.

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Original Communications.

A CONTRIBUTION TO THE STUDY OF THE SO-CALLED PREMYCOTIC STAGE OF MYCOTIS FUNGOIDES.*

BY JAMES NEVINS HYDE, M.D., AND FRANK HUGH MONTGOMERY,
M.D.

THE cutaneous phenomena which precede the development of characteristic tumors in many cases of mycotis fungoides, have been noted by almost all writers on the subject. These precedent dermatoses have been described as resembling if not identical with, eczema, lichen, erythema, pityriasis rubra, psoriasis, urticaria, furunculosis, and other congestive and inflammatory cutaneous affections.

It is well known that tumors may form when no such precedent eruptive symptoms have appeared, but the group of cases where these signals of danger are wanting is admittedly smaller than the other. In surveying the phenomena included in this larger group, it is interesting to inquire whether there is or is not a premycotic stage; whether the symptoms commonly assigned to such a stage may not be valid expressions of a morbid state peculiar to the malady itself, not processes identical with those observed in other diseases. whether these symptoms are not to be differentiated with care from all other dermatoses, because wholly different from them in character and significance. These questions, apart from their scientific interest, have a practical

* Read before the American Dermatological Association, May 31, 1898.

importance in view of the extreme difficulty experienced in many cases when attempting to make an early diagnosis of a malady which has proved so frequently fatal in its issues.

Our experience in mycosis fungoides includes observation of thirteen cases—nine observed in this country, four in France and Austria. Eleven of these cases showed dermatoses characteristic of the so-called premycotic stage. This report is based largely upon a careful study of two patients, both observed and treated by us together—one, that of a woman, dying eventually of exhaustion after the production of large and characteristic tumors; the other that of a man now under observation.

The woman we saw about once each week for a year and a half before any characteristic tumors developed. The male patient was often and carefully examined by us for six months before our suspicions were aroused with respect to the nature of his affection, and for one year and a half before these suspicions were confirmed by the development of typical and unmistakable symptoms.

The first patient, E. B., of German nationality, a widow, twenty-seven years of age, rather fleshy, and presenting the general appearance of good health, was presented first at the college clinic. For the preceding three years she had been suffering from a pruritic affection of the skin, involving the scalp, face, trunk, dorsum of the hands, arms, thighs, and legs. She complained, aside from the itching experienced in the skin, of trifling ailments, such as inappetence, insomnia, and disordered digestion. Her family history was good, and her habits satisfactory. There was no history or suspicion of venereal antecedents. She was exceedingly neat and careful of her person, and there were no indications of lack of hygienic care.

When first presented to us, her symptoms were absolutely limited to the subjective sensation of itching in the regions named above, and to an objective, though fugitive, erythema, usually in ill-defined patches, but at times persisting for weeks near the fork of the thigh, on the outer face of the lower limbs, over the upper part of the chest, and on the arms. Rarely one or two better-defined patches became visible on the temples. She stated that she had been annoyed by symptoms of this sort for a year or two before applying to the clinic. When these fugitive patches disappeared, either as a result of treatment or by reason of an involutive process peculiar to her disease, she was always greatly pleased with the result and satisfied as to her future.

Carefully watched, month after month, our suspicions as to the nature of her trouble were first aroused by the development of patches

of disease, which there is some reason to believe are really characteristic of the malady from which she eventually died, though by most writers these symptoms have been supposed to be eczematoid, pityriasic, or of the nature of other dermatoses preceding the evolution of the real disorder.

These patches were discoid, superficial, well-defined infiltrations of a vivid pinkish-red hue, very slightly elevated above the general level, and either quite smooth over the involved area, or covered with light, branny scales. They varied in size from the palm of the hand to a large platter; and though but a few were first visible, later there slowly developed twenty or more in number over the trunk, upper and lower limbs. Some of these disappeared; others persisted. Among them were developed egg-sized and larger oval patches of a light fawn-colored hue, suggesting characteristic areas of vitiligo. Very slowly from the elevated disks, and also from the otherwise unaffected skin, developed later characteristic tumors. The smaller of these growths covered the face, neck, limbs, and trunk, while a single large fungous mass, elevated to the extent of six centimeters, and with a base of sixteen centimeters in diameter, projected from the left scapula. Other tumors formed on the back of the right thigh on the right temple, and within and about the left orbit. The larger eventually broke down, giving issue to a foul, purulent discharge, to ulceration, and the formation of greenish-black crusts over points of degeneration. In brief, the patient soon presented characteristic features of the disease. On account of her inability to lie on the left shoulder, the large tumor in that region was surgically removed, with a view to temporary alleviation of the local distress. Improvement was marked for a time, but the patient died within a few weeks of exhaustion. No autopsy was permitted. Sections of the tumors in the case were removed during the life of the patient.

The second patient, H. G. G., resident of one of the smaller towns in Illinois, when he first presented himself for treatment, in August, 1896, was forty-one years of age, and married for nine years, without children, his wife having miscarried two or three times from unknown causes. He admitted the fact of two or three blennorrhagic attacks in his lifetime, the last ten years before the date of examination; also, some fifteen years before, the appearance of a genital sore, followed by cutaneous symptoms and "mucous patches." Doubt, however, was thrown about the possibility of any pre-occurring syphilis by reason of the admitted fact that after two months of treatment there had been no consequences. His family history was fair: a father died in his sixty-fifth year, of heart-disease; a mother at fifty-five, of erysipelas;

four brothers and one sister were living, all in sound health. The death of a single infant was recorded. The patient weighed 175 pounds, and said that all his functions were fairly well performed. As to his habits, he was smoking cigars and pipes extensively, and up to three years before, added that he had been using liquor to excess.

When first examined, the skin was everywhere reddened and covered with fine, branny scales, some larger in size, which were freely and abundantly shed. Over most of the cutaneous surface there was neither appreciable thickening, infiltration, nor evidences of scratching, the condition corresponding closely to the description of pityriasis rubra given by Hebra. In places, however, especially about the flexures of the joints, the skin was slightly thickened and torn by scratching. He complained greatly of pruritus in these localities, and stated that he had lost sixty pounds in weight in consequence of his inability to sleep or rest. The patient was actually in a state of cachexia. He stated that the scales had been at one time larger and more numerous, with fissures forming between them. The glands were generally tumefied. There had been no sweating at first, but during the preceding month perspiration had been profuse. This last had occurred in the very hot weather of July, 1896. The patient at this date was registered as affected with universal exfoliative dermatitis. He was given a lime-water, carbolic acid, and oil lotion for the skin, with strychnia internally, and laxatives to relieve the torpidity of the bowels. During the ensuing month he wrote that he was better, though there were "raw spots on the skin." The Lassar paste was then ordered for application, and the patient did not return until the 10th of October, when he was again brought to the clinic, considerably improved in his general condition, and with a distinct loss of the suggestion of cachexia which was at first noticeable. On the outer face of the upper third of the left thigh was discerned a rather firm nodule, scarcely larger than a good-sized bean, painless, globoid in shape, softish in consistency, flattened slightly on the projecting surface, yellowish-brown in shade, and surrounded by a slightly pigmented halo. The record of the patient on this date reads: "Mycosis fungoides probable."

During the year 1897 the history of the general condition of this patient is somewhat remarkable. He was given cod-liver oil with regularity, and improved to such a degree that he and his friends expressed the greatest gratification at the perceptible change in his appearance and in his feelings. The symptoms of exfoliative dermatitis began to subside, or, better, change so that unaffected areas of the skin appeared about and between the points which at first had been most seriously involved. On the 9th of April, however, when

he again visited the clinic, though the general appearance of improvement was still evident, the skin of the back particularly exhibited a noteworthy change.

The surface originally implicated in what seemed to be a simple inflammatory process was now puckered into a curious network of connecting ridges, dense, flat-topped, broad-based, dull-purplish-red in hue, nowhere showing scales, crusts, or traces of an exudate. Between these oddly arranged lines of elevated firm tissue were corresponding valleys of normally colored and apparently normal integument, curving up on the one side and on the other, to form the bases and sides of the chains of hillocks by which they were enclosed. The back presented a coarse resemblance to the skin affected with a network of linear giant wheels, in consequence of the distinct definition of the colored ridges, which were firm, tense, and almost shining.

At this time the small tumor on the outer face of the left thigh, which had given the first index of warning, had disappeared, and left behind it *in situ* a dull-whitish, circular, small-coin-sized area, with its faintly pigmented areola still distinctly visible.

In the month of August sections were removed from an erythematous, slightly reddened and scaling patch, the microscopic appearances of which are shown on the accompanying slides. The patient at this time presented a marked modification of the former network of ridges on the back, which had now flattened into irregular, reddish-brown, slightly elevated patches. The general health was excellent, and the patient, continuing his oil, was gaining in weight and strength, and in the confidence of a complete recovery. No new tumor had appeared.

In the inclement weather of the midwinter of '97-'98 the patient wrote that he was worse; and when he presented himself on the 22d of February it was clear that his health had deteriorated, but as yet no tumors had formed. The general aspect, however, of the infiltrated areas, a suggestion here and there of slight pigmentation of the skin, and the still recognizable patch where the small tumor of the thigh had undergone involution, were suggestive.

Early in March he was again seen, and at this date unmistakable symptoms were present. The photograph taken at that date shows distinctly roundish areas of infiltration which had formed after the melting away of the erythematous ridges preceding. These were characteristic disks precisely of the sort seen by us in the patient, the report of whose case precedes, reddish in hue, slightly infiltrated, and very slightly elevated, scaling superficially, productive of little, if any, pruritus. A section was taken from one of these patches at this time.

and the slides exhibiting the microscopical appearances are herewith submitted.

The patient is living, and in a fairly comfortable condition at the present time.

In surveying the literature of the so-called premycotic stage of the disease under consideration, we have been able to collate facts in forty-eight fairly well-described cases, though it must be admitted that in a small percentage of these some doubt may cloud the diagnosis. Of these patients the sex was set down 37 times, 24 being men and 13 women. The average age of the patients was forty-five years, the oldest being sixty-nine, and the youngest twenty-eight years of age.

These forty-four patients, who suffered in periods ranging from a few months to twenty years before reaching the stage of tumor-formation, exhibited a diversity of symptoms, yet with an average of phenomena strikingly alike. Thus, in thirty-five cases there was intense and incoercible itching; in twenty-eight, erythematous redness occurring in patches, some well—others ill—defined; in twenty-two there was scaling from the surface of these patches, these symptoms being wholly absent in but one case. In but six was there effusion of serum, and a sweating of the surface; in five there was crusting; in but three was there marked induration of the skin. In one case this induration was of so marked a character as to be described as sclerous.

The color of the erythematoid patches or disks was reddish, bluish-red, brick-red, rose-red, brownish, and rarely purplish. In four cases there were symptoms resembling urticaria; in three furuncles; in two psoriasis; in three scarlatina; in one purpura; in eighteen there was strong resemblance to an eczema. Lichenification occurred nine times, the erythematous patches exhibiting lichenoid papules on the surface. The following exceptional features of the evolution of the disease may be named: Twice, erysipelas occurred; four times a bullous eruption; once pustules occurred, having a blackish summit; in four cases there was decided pigmentation of the skin; in one case hemorrhagic symptoms occurred. In two cases there was a generalized dermatitis of the skin; in three the natural folds of the integument were markedly exaggerated. In one case, in consequence of the thickening of the folds of the skin of the face, the aspect of the patient was as characteristically leonine as in lepra. The mucous membranes were spared save in two cases, where leucoplastic spots appeared in the mouth. Two patients had been affected with chancres. In two there was well-marked fever; in five the ganglia were markedly enlarged; in one there was profuse sweating. The hairs were wholly spared in some cases; in others there was an extensive baldness, with pilary loss not merely on the scalp, but

over the pubic and axillary regions. In some cases the nails also were shed; in others the nails were markedly changed in consequence of persistent scratching for years; in yet others the nails were wholly unchanged.

On the basis of these clinical facts it may be stated that there is reasonable probability that the average patient who is about to perish from mycosis fungoides will be a man not much younger than forty-five, and occasionally very much older; that he will suffer for from six months to several years with intolerable and incoercible pruritus; that in the enormous majority of cases he will display during this pruritic period over the trunk and extremities a dermatosis resembling, but not exactly like, an eczematous affection characterized by the evolution of polycyclical disks, in hue light to dark reddish, often slightly scaling, which may be evanescent, recurrent, or persistent, and which may be the seat later of infiltrations, of lichenoid papules, and still later of fungoid tumors, though the latter may develop in regions where no disks have previously appeared. The facts go to show that in a large proportion of cases this patient will be a fleshy, stout individual, with a big belly and well-developed frame; that he will not find his health impaired to any serious extent before the stage of tumor-formation has been reached, and even after reaching such a stage this impairment often will not be conspicuous until degeneration of the tumors has begun.

The histological and bacteriological report is unfortunately but a preliminary one, this part of the work being not yet completed. We had hoped to have thrown some more light on the question raised by Leredde and others in these cases regarding the pathological process that may be demonstrated in portions of the skin which clinically show no evidences of the disease. An accident to the tissue obtained for examination has unfortunately delayed our report on this particular question. Tissue was taken from three lesions on different portions of the man's body and each piece was supposed to include normal skin. This was certainly true of one piece, which was taken from the border of a sharply outlined slightly elevated plaque. Sections from this piece show the pathological process is not limited to the area covered by the clinical lesion.

On histological examination the corium shows dilatation of vessels and capillaries with some endothelial proliferation, and in the papillary and sub-papillary layers, a more or less dense cell infiltration which is limited to the upper part of the corium, except where it surrounds some of the deeper vessels in the form of sheaths or "cuffs." In two of the above-mentioned pieces of tissue the infiltration is diffuse, but sharply

separated from the deeper parts of the corium by a horizontal line and from the rete above by a narrow layer of connective tissue. In the third piece the infiltration is seen in small round or irregular areas separated by bundles of apparently normal connective tissue. Even where diffuse, the masses of cells are more or less subdivided by bundles of connective tissue. Where the number of cells is greatest they are supported by a very delicate fibrillar structure made up in part of elastic fibers.

The cells forming the infiltration are difficult to describe, and their nature has not been definitely determined. The predominating type is that of the connective-tissue cell, but in many places the cells and their nuclei show the greatest diversity in size, shape, and in staining qualities. Round cuboidal or irregularly shaped cells, with little protoplasm and a deeply staining nucleus are numerous. Many of the irregular bodies are evidently fragments of cells. In many places cells are so closely packed together as to modify their shape and size. Some mast cells and multinuclear cells are seen, but no giant cells are found. Mitotic figures are frequent.

The papillæ are enlarged, in places packed with cells, in others more or less edematous, as also are portions of the sub-papillary layer.

The rete is everywhere hypertrophied, the interpapillary processes being elongated, broadened, and frequently branched. In places the cells are swollen and edematous, and there are spaces between the cells. On the whole the rete does not stain well or evenly. Areas of connective-tissue cells, corresponding to transverse or oblique sections of papillæ, are seen, but no cell nests, such as are described by Darier and others, are present. There are, however, spaces which have evidently been formed by the degeneration of rete cells, as in these spaces are found fragments of cells and of nuclei. Many of the cells show vacuoles surrounding the nucleus, which in such instance is frequently shrunken, irregular, and deeply stained. Mitotic figures are quite numerous, especially in the basal layer.

The stratum granulosum is everywhere present and stains deeply. In places it consists of two or three rows of cells. The horny layer is for the most part thinner than normal, and composed of loose, wavy lamellæ. In small areas corresponding to the thicker portions of the stratum granulosum the horny layer is thicker and denser, the cells retaining their nuclei.

The histopathology of this early stage of mycosis fungoides has been studied by Besnier, Darier, Hallopeau, Phillipson, Quinquaud, Leredde, Lukaszewicz, and Jacobi. While their reports at first meeting apparently differ widely, closer study of the reported observations of

these men shows that on the main points they agree very well. They practically all find:

1. Dilatation of vessels and perivascular infiltration.
2. Marked cell infiltration invariably limited to the papillary and sub-papillary layers, except where it forms the sharply defined sheaths or cuffs about the lower vessels.
3. An exceedingly delicate reticulum supporting the cells where the latter are most numerous.
4. Edema of the papillary and sub-papillary layers
5. Mytotic figures in the corium and in the rete.
6. Secondary changes in the rete, including hypertrophy and edema, with some form of cell degeneration. As the tumor-stage approaches, the rete recedes before the connective-tissue growth and may be reduced to a mere line.

Different observers describe differently the variously formed cells, beside connective-tissue cells, seen in the infiltration. This diversity of description merely confirms the observations of Unna and one or two others who state that this multiformity is characteristic of the disease. Unna believes that the varied shapes and sizes of these cells are the result of two processes constantly going on, that is, cell multiplication and cell destruction, and that many of these odd forms are nothing more nor less than cell fragments. Observers do not agree altogether on the presence and significance of mast cells and giant cells, and of cell-nests in the rete, or on the normal or abnormal condition of the larger connective-tissue bundles which subdivide the growth. The differences in reported observations are due probably to a great extent to the different stages of the disease and types of lesions examined. The part played by endothelial proliferation is also a matter of dispute, though it is generally conceded that the process begins as a vascular dilatation and with a sharply limited perivascular infiltration of cells of the endothelial or young connective-tissue type.

In reviewing the literature of the subject it becomes evident that the clinical and pathological features of mycosis fungoides have been differently interpreted in the past by individual writers. The views chiefly accepted may be summarized as follows:

(A) That mycosis fungoides is one of the varieties of sarcoma differing chiefly from the classical types of that disease in the fact of the occurrence in many cases of dermatoses which precede the formation of tumors. In favor of this position is the fact that in some instances the microscopical examination of sections of tumors has revealed similar changes in the two maladies. This is practically the position assumed by Kaposi, who regards mycosis fungoides as a clinical type,

a single disorder in a group of what he calls sarcoid diseases with lymphoderma pernicioso cutis, leukemia cutis, and sarcomatosis, as other members of the same group—all exhibiting between them clinical and histological transitions.

To this view are opposed the striking facts, first, as Bowen has well shown, the spontaneous disappearance of many of the tumors of mycosis fungoides, a species of involution rarely, if ever, observed in any other tumors of a malignant type; second, the histological structure of many of the lesions in mycosis fungoides differs widely from the appearances recognized in sarcoma; third, mycosis fungoides is essentially from the first a cutaneous malady, even though in one case complicated by visceral involvement, while sarcoma more often attacks organs other than the skin: lastly, to the term sarcoma no longer is affixed the significance that it possessed a few years ago, seeing that some of the affections to which the name was given are now no longer recognized as sarcomatous. Among the latter may be named Kaposi's multiple idiopathic pigmented sarcoma, a malady *sui generis*, with lesions capable of complete involution without involving the general health, many of whose features have been wholly relieved by scientific treatment.

(B) That mycosis fungoides belongs to the family of infectious granulomata. From a histological standpoint this view is more tenable than the preceding one, though careful bacteriological research has failed to discover a pathogenic micro-organism, and no history of infection or contagion has been obtained in any of the cases yet reported. This fact is somewhat remarkable in view of the enormous difficulty experienced in protecting nurses and attendants from the dangers incident to the care of mycosis patients in the final and truly loathsome stadium of this malady.

(C) A view of mycosis fungoides has been promulgated in France which discovers in its phenomena a primary lesion at the site of infection, and the evolution of a disorder in relatively definite stages analogous to those of syphilis, one or more of which may be at times wanting, so that, as in the interpretation of the symptoms of syphilis by the French, there may be, for example, an evolution of tumors *d'emblée*, or an inversion of the regular sequence of evolution as a result of which some symptoms may be tardy and others precocious, and yet others follow which should precede the most significant outbreaks. Following the initial lesion the stages as determined by these authors are, first, an erythrodermic period in which transitory superficial parasitic inflammations of the skin occur; second, a lichenoid period, in which the transitory character of the preceding derma-

tosis is lost in a usually persistent papular elevation of infiltrated areas of the skin, usually accompanied by itching; third, a period during which there is tumor-formation with production of fungosities; fourth, a period of degeneration of tumors and numerous symptoms more or less associated with the resulting cachexia, septicemia, and exhaustion. This is an interesting and attractive theory, but one that is yet to be demonstrated and accepted.

Regarding the so-called premycotic stage; it is clearly recognized by many observers (it must be admitted chiefly by those who observed the disease soon after its first and classical description by Alibert) that superficial dermatoses often precede the development of tumors in mycosis fungoides, but these dermatoses are merely accounted as the ordinary phenomena of hyperemia and infiltration of the skin destitute of any significance further than this, that in certain susceptible individuals the issue is in the direction of a malignant disease. These writers have, therefore, freely used the terms "eczema," "lichen," "pityriasis," "psoriasis," "furunculosis," etc., as descriptive of the symptoms which they had under observation. The best commentary on this employment of these titles is furnished by the writers of a somewhat later date who qualify significantly the same names. These latter, in describing the phenomena of mycosis in its so-called prefungoid stage, make use of such expressions as "eczema-form," "pityriasis-like," "lichenoid," etc.

By a few French writers, Hardy, Leredde, and others, a bold departure has been taken with respect to the early phenomena of mycosis fungoides. The so-called premycosis stage is not only denied and the ground taken that mycosis is in full evolution when what may be termed the mycotic dermatoses are developed, but it is claimed that wholly apart from the appearance of any visible alterations the apparently sound skin is at this period the subject of characteristic pathological changes which have been studied in sections of the corium.

This preliminary report is based upon a review of over forty-five cases of mycosis fungoides in which various dermatoses existed and were studied for months or years before the tumor-formation began, and upon an incompleated bacteriological and histological investigation of two cases. The work done will not justify definite conclusions regarding the nature of the disease, but we think it furnishes some evidence in favor of the belief that these early dermatoses, though differing considerably in clinical type, have many characteristics in common, and are the varied expressions of a definite morbid process, that the disease is quite distinct from sarcoma, and that it differs markedly from the recognized infectious granulomata in that its mani-

festations are confined to the skin, but one case having been reported in which internal organs were involved. In this respect it stands in vivid contrast with tuberculosis, syphilis, leprosy, sarcoma, and carcinoma.

We believe the so-called premycotic stage to be thus improperly designated, and would prefer the term prefungoid employed by Morrow, though even thus the stage of fungus-formation and of tumor-formation is not more impressive and important than that of the dermatoses. The mischief we believe to be at work with the earliest pruritic symptoms, and the skin eruptions in the early periods of mycosis we believe to be as significant expressions of a general disease as the tumors themselves.

In brief, though at this time it is impossible to demonstrate the truth, the facts point to a systematic origin for mycosis fungoides as definitely and as unmistakably as a glycosuric xanthoma points to a condition which could by no possibility have been explained by an examination merely of its cutaneous lesions.

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LIOMYOMA CUTIS.

BY CHARLES J. WHITE, M.D.,

Assistant in Dermatology in Harvard University.

IN November, 1898, a gentleman came to my office with a note from Dr. J. Foster Bush of Boston, requesting an opinion as to the practicability of destroying by electrolysis certain small tumors on the face. I was forced to delay my answer until after microscopical examination which revealed the extremely interesting nature of the tumors.

The patient, Mr. W. J. S., is an American by birth, forty-five years of age and has always enjoyed good health. He is a publisher, appears well and strong and has no important defect save the group of lesions upon the right cheek and upper part of the right side of the neck. Four years ago the first outgrowth appeared which to-day is called by the patient "the mother of all the others." This original tumor, situated just posterior to the groove of the facial artery on the lower jaw, remained alone for some months and then was followed by other similar lesions. From then on the growths have been multiplying rather quickly until now there are over sixty scattered about the region seen in the photograph. The tumors begin as small lesions, pin-point in size, pinkish in color and of firm consistence. They remain always discreet and in the four years of growth the largest tumor has attained the diameter of three-quarters of a centimeter.

The present aspect of this group of rare lesions may be described as follows: a collection of growths varying in size from that of a pin's head to that of a large American pea. The smallest tumors are pinkish-red in color and as their size increases they become paler and paler until we find the largest one almost white with a flat, glistening, translucent surface. They are all of firm consistency—the larger ones feeling like keloids. They are non-compressible and have never been attacked by erysipelas. I speak of these two characteristics for the group as a whole would suggest to the observer—who had not felt of the tumors and who had not asked any questions—a possible atypical case of lymphangioma circumscriptum. Subjectively, one extremely important point was elicited by questioning the patient and that was the great pain which frequently comes upon him, at times spontaneously, and almost always when the lesions are subjected to pressure or when the face is exposed to cold when the feeling is as if he were being branded with hot iron.

Objectively and subjectively we have described a disease which has been recorded less than a score of times by modern dermatologists, and I wish to thank Dr. Bush for placing it in my hands. The present case resembles closely those previously reported.

When the diagnosis was firmly established excision of all the tumors was advised and kindly performed by Dr. Bush who sent me three of the new growths for more detailed examination. These pieces were hardened in alcohol in Müller's and in Zenker's fluids, imbedded in celloidin, cut in thin sections and stained by the following methods: alum-hematoxylin-eosin; polychrome methylene-blue glycerin-ether; polychrome methylene-blue-orcein; Weigert's elastic-tissue stain; Van Gieson's connective-tissue stain; Gram-Weigert bacterial stain; Weigert's myeline-sheath stain, and Pal's modification of the Weigert stain. The last two procedures were kindly performed for me by Dr. J. J. Thomas.

On examining the epithelium of the three individual tumors stained in the several ways just mentioned one is struck at once by the effect of pressure from below on the upper layers of the skin. The stratum corneum and stratum lucidum present nothing worthy of note. The stratum granulosum is reduced to a single layer of cells in some places while in other this layer is practically absent. The sections stained by polychrome methylene blue show very beautifully in certain areas the transitional stages from the mucous to the granular layer—the rete mucosum in one field of the microscope being composed for half its depth of elongated cells with large nuclei. The rete mucosum is reduced in thickness and shows the absence of interpapillary downgrowths so indicative of pressure from below. The cells themselves are abnormal in several particulars. Those of the perpendicular layer adjoining the corium are twisted and distorted, are of many sizes and in some places are closely matted together, in others appear more scattered and grow at different angles while in a few areas appear distinctly necrotic and absorb the coloring reagent but meagerly.

Approaching the more superficial rows of cells we are struck with the trophic changes present—the so-called “*altération cavitaire*” being quite conspicuous in places. Here and there a few polynuclear leucocytes have found their way among the rete cells, but other signs of active inflammation or degeneration are absent.

It is not until we reach the corium, however, that we come to the most interesting part of the sections. With the exception of a narrow band of connective tissue immediately below the epithelium the greater part of the corium is composed of a mass of smooth muscle-fibers which have practically displaced all other tissues so that in place of the usual

amount of connective tissue, elastic tissue, sebaceous glands, hairs, sweat-glands, blood-vessels, nerves, and fat we find bundles of muscular fibers running in all possible directions. In describing these pathological changes in the corium more in detail let us combine the results obtained from the study of many sections colored by the several special tissue stains enumerated above.

Below the epithelium there is a narrow band of connective tissue which grows upward into the rete mucosum and forms the few papillæ existing. In this layer we find a few large elastic fibers which apparently have no connection with one another. The small, delicate fibers are totally absent and none could be seen in the papillæ. The special



FIG. 1.

stains for nerves and for bacteria fail to disclose the presence of these substances. The small blood-vessels in this region, which are rather increased in number, are dilated and filled with red blood-corpuscles. Their endothelium shows active proliferation and about their outer walls we find small masses of leucocytes, some mastzellen and an occasional plasma cell. The few sebaceous glands which exist here are very small and their broken-down nuclei and faintly stained protoplasm indicate their future speedy disintegration. Below this superficial connective-tissue layer we come to the new growth of muscle-fibers. This hyperplasia of muscular elements consists of bundles of smooth muscle-tissue

which appear running in all possible planes and directions. In many places the muscular fibers are normal and present all the characteristics of healthy smooth muscle substance; in other areas there are foci of degeneration with shrunken and broken-down nuclei and poorly staining protoplasm in the midst of which we find vacuolization.

Occasionally throughout this deeper region one finds trunks of connective-tissue fibrillæ, in the midst of which lie numerous small capillary twigs exhibiting the same signs of hyperplasia seen in the minute vessels just below the rete Malpighi. Running between the individual muscular bundles of the tumor proper one sees the most delicate con-



FIG. 2.

nective-tissue fibrillæ, in the midst of which lie numerous small capillary vessels. Small elastic fibers are lacking here as above the muscular mass and all signs of nerves are equally wanting. About the periphery of the tumor we find large masses of free red blood-corpuscles which, it is fair to assume, are due to the section of vessels during the excision of the tumors. It is to be regretted that owing to the age and advancement of the tumor formation in all the specimens examined we could obtain no clue to the origin of the muscular hyperplasia.

Thus we see by the minute examination of these sections that we have to deal with a new growth of muscular tissue which has replaced almost

entirely the usual constituents of the normal corium. We find also a hyperplasia of blood-vessels and in addition we note a secondary process at work in the tumor substance, namely, degeneration. In closing this short description, I would say that the recent admirable papers upon dermato-miomata by Crocker and Neumann render any further historical résumé of the literature unnecessary. Their articles cover the ground absolutely and it is only interesting to note how small the differences are in the twenty or more existing descriptions of this rare cutaneous lesion. The present case resembles most closely the example observed by Neumann but there are, however, these two differences:

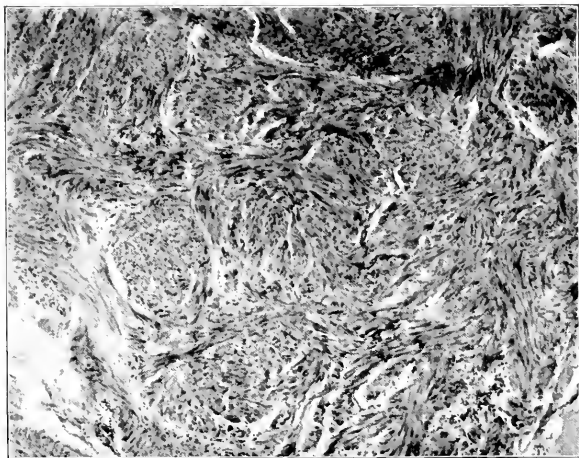


FIG. 3.

first, in the present case there is a more pronounced vascular element which would perhaps ally it more closely to the myoma telangiectodes—a subdivision of myomata mentioned first by Virchow in 1854; and second, the presence of degeneration in the tumor—a feature not before described histologically, although some of the tumors in Jadassohn's cases disappeared spontaneously.

In conclusion I wish to thank Mr. Louis S. Brown of the Pathological Department of the Massachusetts General Hospital for the excellent photographs which give one so good an idea of the microscopical appearance of the tumors.

Fig. 2, stained with hematoxylin-eosin, represents a section from the largest tumor excised. One sees below the epidermis the layer of connective tissue below which is the great muscular mass of the tumor proper. One sees the ramifications of the many muscular bundles and running through the middle of the tumor from the surface downward

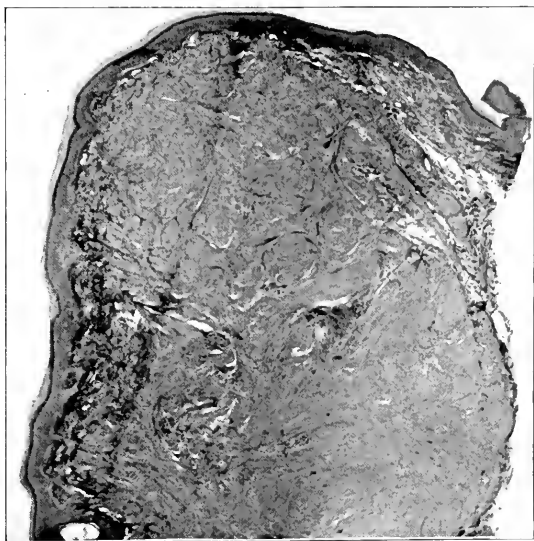


FIG. 4.

one can distinguish the area of degeneration and necrosis alluded to in the text.

Fig. 3, stained with polychrome methylene blue represents a higher magnification of the muscular bundles.

Fig. 4, stained by Van Gieson's method, illustrates extremely well the very small amount of connective tissue present in the tumor. The darker lines in the photograph represent the connective-tissue fibrillæ and, with the exception of the region immediately subjacent to the epidermis, one can see that connective tissue plays almost no part in the structure of the tumor.

Clinical Notes.

"THE YOUNGEST CASE OF THE INITIAL LESION OF SYPHILIS."

By E. L. COCKS, M.D.,
New York.

WILLIAMS WILLIAMS, age nine months and two weeks, born in New York City, was brought to my clinic at the Harlem Hospital by his mother, age 24, born in Finland. The father is also a Finn, age 26, carpenter by occupation.

The mother is a picture of health, as is also the baby, who is her first child.

The baby, on account of insufficiency of mammary secretion, was given the bottle when two weeks old.

The baby grew nicely until the first of April, 1899. He then became very fretful, crying painfully when the nipple was placed in his mouth.



A week later the mother first noticed a small sore on the upper lip.

April 22, 1899, I first saw the baby. The lesion at that time was one-half inch in length three-eighths in width, exceedingly painful, and very hard, the floor crusty. The right parotid and submaxillary glands are tender and enlarged.

There is a universal macular syphilide, more pronounced on the trunk and face. There is also a general adenopathy. The chancre of the lips, the macular eruption, and the healthy condition of the child is well shown in the accompanying photograph.

A very careful examination of the parents failed to show any syphilitic manifestations.

Society Transactions.

NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SEVENTY-FIFTH REGULAR MEETING, HELD ON JANUARY
24, 1899.

DR. DANIEL LEWIS, *President, in the Chair.*

A Case of Anesthetic Leprosy.—Presented by DR. P. A. MORROW.

The patient was a man, 47 years old, a native of Bermuda. During the past eighteen years he had resided in this city, but had made several trips to Bermuda and other infected districts. About sixteen years ago he first noticed a small discoloration on the forehead, which gradually spread, until now it involves almost the entire face, extending on the left side behind the ear and encroaching upon the hairy scalp. Similar patches have since appeared on the left shoulder and the antero-lateral aspects of the thighs. There is also a patch on the right foot, with marked anesthesia of the central portion. There are other corroborative evidences of nerve-leprosy, which will be detailed in a subsequent report.

DR. G. H. FOX said he regarded the case as a typical one of leprosy of the macular form. The appearance of the discolored areas, together with the loss of sensibility, were very characteristic.

DR. S. LUSTGARTEN referred to the slow development of the lesions in this case, which demonstrated the benign course sometimes followed by leprosy. This patient has suffered from the disease for at least sixteen years, and thus far shows very few lesions and symptoms.

A Case of Erythema Induratum, "Erythème Induré des Scrofuloux" of Bazin.—Presented by DR. CHARLES T. DADE. (By invitation.)

The patient, a man, aged 42, pallid, with poor circulation; no family history of any disease; both parents living; no syphilitic history; three healthy children; presented on the sides and posterior aspect of both legs a number of red, nodular lesions. This, his third successive, attack began in October, 1898; the two previous attacks beginning each year at same period, and lasting well into the Spring, before the succession of nodules had ceased and disappeared, to leave some staining, which finally effaced itself. The nodules, or rather plaques, now eight on right leg, four on left, varying in size from a hazel to a walnut, but little prominent, at first subcutaneous, and felt rather than seen, were of a somewhat violaceous red, the color blending insensibly at the circumference with surrounding skin and slight desquamation over surface of plaques. On palpation the borders are ill-defined, losing themselves gradually in the surrounding tissue, giving a doughy sensation to the finger.

The patient never experienced spontaneous pain, except after prolonged standing or walking. No pain or sensitiveness at all on pressure. Never any general swelling of legs.

In the center of the larger plaques a decided softening could be appreciated

and fluctuation made out, but none of the lesions has ever broken down spontaneously to make ulcers. The ulcer on left leg, now almost closed, was the result of the removal of the roof of one of these fluctuating areas for microscopic purposes. The specimen obtained, with contents of the cavity exposed, were investigated by Dr. James Ewing, of the Pathological Laboratory, Col. Phys. and Surgs. A section through this specimen exhibited simply the changes of a sub-acute exudative inflammation; there was nowhere any evidence of necrosis, of simple, round-celled infiltration, of marked fatty degeneration, or of the formation of miliary tubercles. A guinea-pig injected with a portion of the cavity contents now, after some six weeks, is alive and apparently healthy, awaiting developments. Vigorous antisyphilitic treatment for one month had aggravated, if anything, the trouble, new nodules continuing to appear during the administration of mixed treatment.

DR. H. H. WHITEHOUSE said the case did not impress him as being one of erythema induratum. The manner of recurrence of the lesions was rather unusual. The speaker said that, while he did not care to venture a positive diagnosis, he thought it possible that the lesions were cutaneous and subcutaneous gummata; at least, the possibility of syphilis should be borne in mind.

DR. J. A. FORDYCE said that he was inclined to agree with the diagnosis. Of course, there was a possibility that the lesions were subcutaneous gummata, but as the patient had been under observation for some time, specific treatment had probably been already employed without effect.

DR. E. B. BRONSON regarded the case as one of erythema induratum of Bazin. The appearance and location of the lesions were characteristic, as well the tendency to recur. As in many of these cases there was a considerable resemblance to syphilitic gummata. But, were it the latter disease, we should not expect both legs to be affected so nearly alike, nor would the lesions be apt to recur repeatedly at precisely the same points as they did here.

The striking resemblance between erythema induratum and syphilis was shown at the recent meeting of the International Dermatological Congress in London, where many cases were exhibited, which, at the first glance, at least, most of the Americans present diagnosticated as syphilis.

DR. FOX said the case was certainly an erythema, and the lesions were certainly indurated and he saw no resemblance between them and syphilis. The lesions of indurated erythema sometimes occur in patients who are apparently enjoying excellent health, with no manifestation of scrofula, and the diagnosis has no precise signification.

DR. DABE, in closing, conceded that erythema induratum in many instances was hard to distinguish from syphilis, and that it was more often mistaken for this than any other disease, subsequent observation alone enabling a positive diagnosis.

In this case, however, he thought that, owing to the duration and evolution, the non-response to specific treatment, together with the negative microscopic findings, syphilis could be well ruled out. Again, the absence of pain and tenderness, febrile symptoms, the long duration, the relapses, and indolent character of the affection; the situation and comparative small number of the lesions, sufficiently distinguish the case from true erythema nodosum.

A Case Resembling Scleroderma.—Presented by DR. G. H. FOX.

The patient was a boy, sixteen years old, a native of Ireland. When he first came under Dr. Fox's observation, in July, 1898, he weighed 83 pounds, and

his fingers were so stiff and deformed that he had difficulty in buttoning and unbuttoning his clothes. He stated that about four years previous to that time he had first noticed a stiffness of the knees, followed by a similar condition of the elbows. At that time he lost fifteen pounds in three months. The backs of the hands and legs became edematous on going to bed at night, and the fingers and toes became "drawn." In 1896 he was seen by Crocker, in London, who pronounced the case one of scleroderma. In that year he was an inmate of the University College Hospital, in London, for six months, and during his stay there he gained five pounds in weight, under massage and Turkish baths. He states that at that time his feet, hands, forearms, and legs were as stiff as a board, and that the skin of the face and trunk was also quite hard. There was never any pain, nor burning or itching of the skin. Since 1896 the skin has become movable over the head and trunk, and is not so hidebound over the hands and feet as it was. A steady improvement in his condition has taken place during the past two years. He eats and sleeps well.

Dr. Fox said the boy was admitted to the New York Skin and Cancer Hospital last summer, and, during his stay there he gained about ten or twelve pounds in weight, and his general condition improved. The greater portion of the skin, although thin, was not hidebound. He left the hospital, but recently reappeared, the stiffness of the fingers having recurred. The skin in certain localities presents the appearance of scleroderma. In the hands the fat seems to have disappeared, and the fascia has become drawn as in Dupuytren's contraction. Dr. Pearce Bailey reports that in an autopsy on a similar case he found a disappearance of the thyroid, with fatty degeneration of the muscles and a diminution of the gray matter in the spinal-cord.

Dr. BRONSON said he could hardly regard Dr. Fox's case as one of scleroderma, properly so-called. He was rather inclined to attribute the condition of the skin to some central-nerve disturbance. The deeper tissues appear to be more markedly affected than the skin.

Dr. FORDYCE said he agreed with Dr. Bronson that the case represented something besides scleroderma. The trouble was evidently located in the spinal-cord, probably in the large cells of the anterior column, which would account for the muscular atrophy in connection with the scleroderma.

Dr. SHERWELL said he agreed with Dr. Fordyce's remarks. The case was somewhat similar to one which he had presented to the New York Society some years since, and at the meeting of the American Association last year. In this case the patient was a woman suffering from an obscure neurotic affection, accompanied by marked atrophy of the skin.

Dr. S. LUSTGARTEN also objected to the diagnosis of scleroderma. There was probably some lesion of the spinal-column, with secondary atrophy of the muscles and skin.

Dr. Fox, in closing, said that, according to the patient's statement, the diagnosis of scleroderma in this case had been made by Crocker of London. At that time his condition was probably much more aggravated than it is at present. Dr. Fox said that a number of cases similar to this one had been presented to the Society in the past, where there was very little change in the texture of the skin, and where the term scleroderma hardly seemed to be the proper one, as the trouble was chiefly subcutaneous. In the case under discussion, the speaker said he regarded the condition as a general one, accompanied by a hidebound skin, but not a true scleroderma, such as we find associated with patches of morphea.

A Case of Lupus of the Leg.—Presented by DR. A. R. ROBINSON.

The patient was a boy, thirteen years old, with a number of lesions just below the left knee. These had made their appearance about six months ago as small, pin-head-sized lesions, which gradually extended at the periphery. Since then new lesions have made their appearance, while the old ones have increased in size. Dr. Robinson expressed the opinion that the lesions were probably of tuberculous origin: the case one of lupus vulgaris of unusual appearance. The lesions are all very superficial, evidently in the upper part of the corium, the large ones sharply limited, the small ones have an indistinct margin. All are dark brown in color, purpuric-like at first glance, and not soft in consistence. The epidermis over them is shining, and there are no signs of a broken surface.

DR. LUSTGARTEN said he did not care to express an opinion until a microscopic examination was made. The clinical features he did not regard sufficiently pronounced to base a diagnosis upon them, while a diagnosis by exclusion is always unsatisfactory.

DR. FOX said that from a clinical standpoint he would not regard the case as lupus vulgaris. He thought there was no doubt, however, that the lesions were the result of a tuberculosis of the skin. In one case which had come under his observation the patient had a number of circular patches on the buttocks, which were very similar in appearance to those in Dr. Robinson's case, having the same mahogany color, and becoming depressed in the center and slightly scaly. In that case, Dr. Fox said, he made a diagnosis of scrofuloderma of the skin. The speaker expressed the opinion that we should regard lupus vulgaris as simply one form of various tubercular manifestations of the skin.

DR. ROBINSON, in closing, said he based his diagnosis on the history of the individual lesions: each commenced as a small, deep-seated, brownish lesion, situated about the follicle, gradually spreading at the periphery, and attaining its full size in about six months. A chronic, inflammatory granulomatous growth of this character is probably the result of tubercular infection. Dr. Robinson said the only other disease he had considered in connection with this case was lichen planus, but the appearance of the early lesions had led him to discard that idea.

A Case for Diagnosis.—Presented by DR. FOX.

The patient showed a unique affection of the axillæ, vulva, and mons. The hairs in these regions had disappeared, evidently from scratching, the itching being very severe. In the axillæ there is a fine papular condition, appearing as though the result of a chronic eczema; in the vicinity of this there are small isolated papules, which look as though they might be some of the original lesions. The eruption in the axillæ has existed one year.

DR. MORROW regarded it as a case of incipient pityriasis rubra pilaris.

DR. ROBINSON said that if it were not for the location of the lesions he would be inclined to agree with Dr. Morrow. As it is, he was not willing to venture a diagnosis.

DR. FOX said his first impression was that the lesions were the result of an eczematous condition from constant scratching, but a more careful examination of the papules had led him to believe that possibly the diagnosis of pityriasis rubra pilaris or lichen ruber would eventually prove to be the true one.

A Case for Diagnosis.—Presented by DR. E. B. BRONSON.

The patient was a woman, 29 years old, who had been married thirteen years.

Eight years ago she first noticed small, subcutaneous lumps occurring along the thighs, and afterwards in different parts of the body, sometimes singly, sometimes in chains or clusters. These lumps are painful on pressure. During the past three years the patient's weight has increased from 112 to 198 pounds, the increase of flesh being almost exclusively confined to the trunk, thighs, and upper arms. The thyroid is not enlarged. The special senses are not involved, although the patient is inclined to be nervous and hysterical. She has never had any children. Dr. Bronson said the case possibly belonged to the category described by Dercum and others under the name of *adiposis dolorosa*.

DR. S. SHERWELL said the case was similar to one which had been under his observation. His patient was a young woman, who, within a few years, grew enormously bulky, the increase of flesh being confined to certain regions of her body. As in this case, there were certain painful spots over the limbs. There was also a history of painful and irregular menstruation, and finally complete menopause, which Dr. Bronson's patient also gives. Dr. Sherwell said that he was inclined to consider there would be likely to be some trouble with the thyroid in these cases.

DR. LUSTGARTEN said that Dr. Bronson's patient was at present complaining of symptoms which indicated a precocious menopause: her menstruation during the past three years has been irregular and scanty, and she suffers from hot flushes, with attacks of perspiration. Dr. Lustgarten said that on account of the distribution of the adipose tissue he did not think the trouble lay in the thyroid. In this case there was no enlargement of the lips and tongue, nor of the hands and feet, which are, as a rule, early attacked in myxedema. The speaker suggested the use of Armour's preparation of ovarine.

Potassium Iodid Eruption in a Patient, with Symmetrical Atrophy of the Skin.—Presented by DR. J. A. FORDYCE.

The patient was a middle-aged woman, who had already been shown by Dr. Fordyce, about two years ago. She was suffering from symmetrical atrophy of the skin, and for about a year had been taking potassium iodid, in doses of from thirty to fifty grains daily. About two months ago she stopped taking the drug, and within two weeks after its discontinuance she developed a number of large vesicles and vesico-postules on the hands, arms, and legs, which are probably due to the iodid. The lesions only appeared on the atrophic patches of skin.

DR. MORROW said the pustular lesions in the case shown by Dr. Fordyce bore a striking resemblance to a syphilide. The fact that this woman had been taking potassium iodid for about a year without causing any ill-effects, the lesions developing two weeks after its discontinuance, rather militated against the idea that the eruption was due to the use of the drug.

DR. ALLEN said he was inclined to take the same view of the case as Dr. Morrow. According to his experience potassium iodid eruptions come out while the drug is being administered rather than after it is stopped. The lesions in Dr. Fordyce's case seemed rather characteristic of syphilis, although that disease appears to have been excluded.

DR. LUSTGARTEN called attention to the fact that the lesions occurred in the regions occupied by the atrophic skin, where the tissues were less resisting than normal. He thought it possible that the lesions were parasitic in character.

DR. DADE, in answer to Dr. Morrow, said that during the administration of potassium iodid where there is any renal inadequacy, whether due to kidney

itself or weakly acting heart, the diuretic effects of the drug might prevent the occurrence of skin lesions: when the potassium iodid is stopped, in such cases the diuretic action ceases and the iodine, not being removed fast enough, excites an eruption. The speaker referred to a bad heart case recently seen at Bellevue Hospital, where a bullous iodid eruption appeared after the drug (only 30 grains having been given) had been stopped.

DR. MORROW said he had never seen an iodid eruption first appear long after the administration of the drugs had been stopped.

DR. FORDYCE said that potassium iodid eruptions do sometimes appear after cessation of the drug. Crocker, in his text-book, attributes this to the diuretic action of the drug, as Dr. Dade stated. Dr. Fordyce stated that in one case, where he gave potassium iodid for six months, no skin lesions appeared during the course of its administration, but after it was stopped, a characteristic iodid eruption developed.

DR. SHERWELL said he had seen a potassium-iodid eruption appear after the cessation of the drug.

DR. LUSTGARTEN said he had never observed such a case. In a previous discussion regarding skin eruptions due to the use of bromids and iodids, he spoke of the fact that bromid eruptions developed slowly, while those due to the ingestion of potassium iodid, appear and disappear quickly, conforming to the rapid elimination of iodid from the system.

DR. ROBINSON said he had never seen an iodid eruption appear so long after the drug had been stopped.

DR. ALLEN said he had never seen it, although he frequently gives the drug in very large doses. He has frequently seen an eruption appear during the administration of the drug, but never after it was stopped.

Discoloration of the Finger-Nails, Illustrating the Rapidity of Growth.—

Presented by DR. C. W. ALLEN.

The patient was a young man, a dyer by occupation, who, in the course of his work, frequently immersed his hands in a solution of pyrogallol. This had produced a black discoloration of the nails throughout their entire thickness. The man had been idle since the first of January of the present year (four weeks), and the narrow white rim along the root of each nail represented its growth in that period of time. The man states that it takes about three months for the entire nail to grow out in its natural color.

A Case of Leucoderma Syphiliticum.—Presented by DR. ALLEN.

The eruption in this case was confined to the chest. The patient stated that he had had no other eruption. It consisted of irregular areas in the neighborhood of the axillæ, presenting the usual reticulated appearance, rounded areas of unpigmented skin being surrounded by a pigment network.

DR. FOX said that in his plates of diseases of the skin published twenty years ago there was a photograph of a man who had white spots over the greater portion of his body, the lesions appearing after syphilitic infection. The speaker thought the term leucoderma syphiliticum was preferable to that of pigmentary syphilide. In one case coming under his observation there was a preëxisting macular syphilide, the whitening of the skin occurring first at the margin of the lesions, and leaving a little bull's-eye in the center, which gradually disappeared.

DR. JOHNSTON asked if it was not possible to have the two conditions, namely, a pigmentary syphilide and leucoderma. From the configuration of the lesions

in the case shown by Dr. Allen, he regarded it as a leucoderma. These cases were looked upon as absolutely pathognomonic of syphilis, until Fournier, in 1894, described a case in a girl, eighteen years old, who gave no history of syphilis, but who did have pulmonary tuberculosis, from which she died. Since then about eighteen similar cases have been reported, and the subject has been thoroughly studied by Thibierge, who found that in every one of those cases syphilis could be excluded, but that advanced tuberculosis was present. This shows that we may have a pigmented tuberculide as well as a pigmented syphilide.

DR. FORDYCE said this form of eruption was rather unusual in males, being much commoner in women. The localization underneath the axillæ was also unusual. In some cases we may have a combination of the two conditions—leucoderma and pigmentation.

DR. DADE thought the case shown by Dr. Allen was one of pigmentary syphilide. He expressed the view that a distinction should be made between secondary pigmentations, leucodermatous conditions occurring in the course of syphilis as relics or sequelæ of lesions chiefly secondary, and the true *pigmentary syphilides*, which are essential affections.

DR. ALLEN said he had seen quite a number of these cases recently, especially in women, and only as a manifestation of syphilis. Of course, the distinction must be made between this condition and the ordinary leucoderma, which is not uncommonly seen in young women.

DR. FOX said that leucoderma, or vitiligo, occurring spontaneously, rarely, if ever, appeared in so many small, round spots as in the case shown by Dr. Allen. The configuration and location of the lesions in that case were very suggestive of syphilis.

DR. BRONSON objected to the term *leucoderma syphiliticum* as applied to this affection. Leucoderma was a condition that was seldom seen, except as a result of some previous lesions or as an accompaniment of excessive pigmentations, as in the disease vitiligo. The present case was essentially a vitiligo, due to syphilis. The pigmentation in excess was a more important, or certainly as important, a feature as the central pigmentary atrophy.

DR. JOHNSTON said the question as to whether the leucodermatous patches are or are not preceded by a roseola was practically settled by Fournier, who states that there is no preceding eruption.

DR. FOX said the evidence advanced by Fournier on this point was negative in character. The speaker said that eighteen years ago he read a paper before this Society on the subject of the pigmentary syphilide, in which he reported a case where the pigmented lesions had disappeared and white spots took their place. Dr. Elliot has referred to other observers, who have noted the same phenomenon. In every such case coming under his observation there was a history of syphilis. Whether a syphilitic eruption preceded the pigmentary lesions Dr. Fox said he could not say, but it is fair to assume that it did. In reply to a question, Dr. Fox said the vitiligo, while occurring bilaterally, was usually more marked on one side than the other. Women were especially prone to such manifestations.

DR. MORROW said that, according to his experience, the pigmentary syphilide did not necessarily develop upon the site of a preexisting eruption. Also, that there was not only hyperchromia in the darkened patches, but absolute achromia in the white spots. The statement that the whitened patches only appeared white by contrast with the darkened periphery is not borne out by fact; there

is absolute loss of pigment. There is both achromia and hyperchromia, the result of a displacement of the pigment.

DR. BRONSON said there was probably sometimes an absolute loss of pigment, but that did not constitute the whole disease. Always there was excessive pigmentation at the periphery, and usually the apparent whitening in the center was due rather to the loss of the excess than to an absolute atrophy.

A Case of Multiple Fibroma.—Presented by DR. E. B. BRONSON.

The patient was a young man, with numerous tumors scattered over the body. Dr. Bronson regarded the case as one of molluscum fibroma, or neuro-fibroma, as it was called by Unna

A Case of Multiple Lipomata was presented by DR. BRONSON.

DR. ALLEN showed some photographs of a case of lupus erythematosus of both cheeks, illustrating the condition of affairs before and after treatment. The lesions disappeared entirely under the use of pyrozone and emplastrum hydrargyri.

DR. ALLEN also showed a fresh specimen of a rather unusual form of epithelioma of the breast, with involvement of the skin near the nipple.

DR. FOX said that over ten years ago he presented to the Society a man, then an inmate of the Skin and Cancer Hospital in this city, who was suffering from the macular form of leprosy. The patient is now residing in the West, and in a letter received from him a few days ago he stated that he was enjoying perfect health, and had observed no manifestation of the disease for years.

DR. MORROW said that about ten years ago a woman suffering from leprosy had been referred to him by Besnier. She was under Dr. Morrow's care for three or four years, and in a letter received from her within a month she said that, so far as she could determine, she was entirely rid of her trouble. She has had no manifestations for some years.

Report of Cases Shown at Previous Meetings.—DR. FORDYCE said the patient he had shown at the previous meeting, which presented features of pemphigus and dermatitis herpetiformis, had developed into a full-fledged case of pemphigus.

DR. MORROW reported that his case of double chancre of the lips has developed a characteristic macular eruption.

DR. ALLEN reported that his case of chancre of the nipple had developed a generalized eruption, accompanied by intense headaches. At the previous meeting some of the members expressed doubt as to the character of the lesion on the breast.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON GENITO-URINARY SURGERY, TUESDAY EVENING, MARCH 14, 1899.

G. K. SWINBURNE, M.D., *Chairman.*

A Case of Multi-Sacculated Bladder.—DR. J. F. ERDMANN said that the specimen which he exhibited was one obtained from the dissecting-room. The cadaver was that of a man about 60 years of age. It was rather a large bladder and from its surface there were three outputs resembling diverticula, one large enough to hold a hen's egg and another large enough to hold an English walnut, while the third one was about the size of a filbert. The prostate was enormously large and formed so-called ball-and-socket valve to the orifice of the urethra. The specimen had been in formalin about a year and these sacculations had contracted, but they could still be observed, the posterior enlargement being quite marked. At the left side of the bladder there was a small eminence, which was a sacculation filled with cotton. It was large enough to hold a filbert. At the fundus there was one large enough to hold an egg without any trouble, and at the right side was a sacculation sufficiently large to hold an English walnut. The median lobe of the prostate was very much enlarged and covered directly the orifice of the urethra. The sacculations could each of them have held calculi, which would have been very difficult to have found except by cystoscopy.

In connection with the specimen the speaker recited the following history. About two months ago he was asked to assist a man in an operation on a case of stone in the bladder and it was possible to locate the stone. The attempt to crush it failed as they were only able to seize it once with the lithotrite and afterwards lost it and then he got the doctor to wash the bladder. He withdrew a little of the fluid in the washing and putting in a little bit more each time, being unable to withdraw any of it except by reaching with the washing-tube one certain point, then they found they had a distinct sacculation which led up to the left side, and the diagnosis was made of either sacculation or so-called double bladder. A suprapubic cystotomy was then done and a stone of considerable size was removed from a large pouch leading from the fundus off to the left side.

A Simplified Urethroscope.—DR. F. C. VALENTINE presented this, and demonstrated its workings upon two patients.

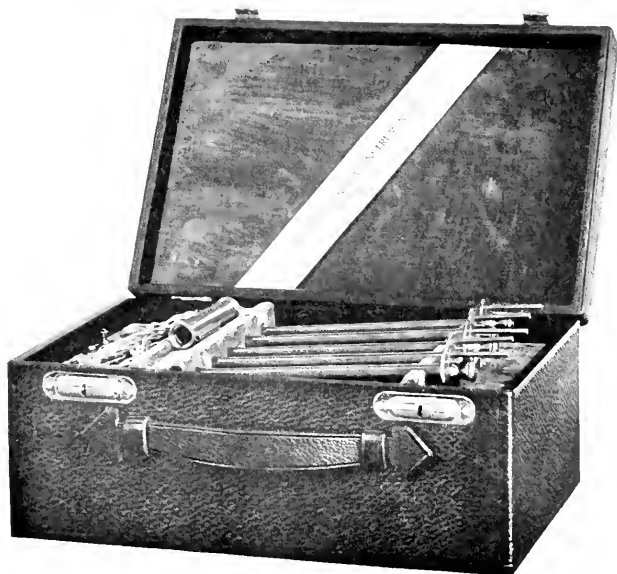
DR. VALENTINE said that in presenting this model of a urethroscope he must primarily do an act of plain justice. This was the tribute to his friend and fellow-student, Dr. Henry Koch, for credit due him for the aid and encouragement given Mr. W. C. Preston in the manufacture of the improved lamp. This, in its present state, gave a greater intensity of illumination, with less heat, than any other now used.

All would agree that increased simplicity, easier management, greater usefulness were the essentials of all instruments. These desiderata were obtained by the urethroscope he had the pleasure of showing.

The urethroscopes now in use could be divided into three classes as far as their sources of illumination were concerned. These were: the reflected, pro-

jected, and direct. As types of the first we had the Grünfeld, Posner, and Klotz tubes. With due deference to these notable investigators, the speaker said, the urethroscopist found that he needed quite active coöperation between his head holding the mirror and his hands to so focus the light that it would strike the points to be examined or treated. Moreover, the intensity of the illumination must suffer in proportion as the source of light was distant from the point to be illuminated.

The urethroscopes employing projected light and now most in use were those of Casper, and the aero-urethroscopes of Fenwick and Otis. These were indis-



Valentine Urethroscope, complete.

putably valuable instruments, especially in the hands of their inventors. But their electric light being projected by means of a prism or mirror they required a somewhat complicated apparatus in themselves and large, expensive batteries for their use.

The type of urethroscope employing direct light was the Nitze-Oberlaender. It placed the small incandescent platinum wire within the urethra almost in contact with the points to be examined. By this means it furnished the clearest illumination of the region. It, however, required not only complicated addenda, such as a rheostat, a water-cooling arrangement, but also removal of the un-

covered electric light each time it became necessary to mop secreta from the urethra.

The speaker said his instrument accomplished all that the other instruments could offer, with none of their objections. Its tubes are a slight modification of Kollman's modification of the Oberlaender tubes except that the tube was provided with spurs, to which the light carrier and the megaloscope were attached.

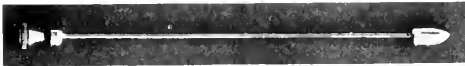
The little dry-cell battery furnished the light. It could be used anywhere, as no stationary apparatus was connected with it.



Tube for Valentine Urethroscope.

The light itself was enclosed in glass and when placed within the silver tube could remain in the urethra indefinitely without producing an uncomfortable elevation of temperature.

The speaker said that the model he showed was still defective but it would within a short time be so arranged that it would be more serviceable. The instrument, which was quite new, he had now used in about 100 urethroscopies during the past month, both in private as well as in dispensary patients. He had



Obturator.

left it in the anterior urethra as long as 15 minutes, in the posterior urethra as long as 10 minutes, and no patient, even when asked to note if he experienced any heat from the light, ever complained, and as far as the patient was concerned he could have left it there longer because there was no sense of heat communicated to the urethra by the instrument.

In exploring the posterior urethra, the urine that dribbled from the bladder extinguished the light of the Nitze-Oberlaender instrument. To use it, very



Valentine Light-carrier.

rapid work was required with the cotton mops. This entailed frequent removal of the light, or such quick examination that important points might be overlooked.

This simplified urethroscope required no such aid or interruptions. The

urine dribbled over and about the light without affecting it. Should the amount of urine or secretions obscure the region to be examined, it could be removed by thin applicators wrapped with cotton, without, however, extracting the light.

The five urethral tubes at present furnished with the outfit differed but slightly from Kollmann's modification of the Nitze-Oberlaender tubes. The spur at the external dise was made larger and stronger. This could be used for the megaloscope attachment, whenever it became necessary to greatly magnify any special point in the urethra.

DR. VALENTINE then demonstrated the instrument upon two patients, and



Megaloscope.

asked the Society to note the time the instrument was left in the urethra as he thought that would be the best evidence of the coolness of the light.

The speaker called special attention to the ease with which the instrument was used. He hoped this would increase the number of workers in visual examination of the urethra. He hoped the easier management, clear light, and low price of the instrument would act as an inducement to the further development of urethral pathology.

The instrument and battery were made for him by the Electro-Surgical Company of Rochester, under the direct supervision of Mr. W. C. Preston.

Gangrene of Scrotum.—By DR. J. P. TUTTLE.

DR. TUTTLE said that the case which he had the honor to present to the Section to-night was not in its final stage exactly a genito-urinary case although in its first appearance it was entirely so. This patient was brought into the Alms-House Hospital a year ago last August. He was taken from the tubercular ward and the speaker was called to see him as a case of abscess or gangrene of the scrotum. He went into the ward and looked at him and found an apparent case of gangrene of the scrotum with an abscess. He told his House Surgeon to open and drain it. On his return home his House Surgeon called him up, and said: "I opened that abscess and nothing but fecal matter came out of it. Please come over quick." He returned and found the man in a desperate condition—evidently with a rupture of the gut into the tunica vaginalis, with large gangrenous scrotum. He told him he was in a very grave condition, stated the facts to him very carefully and the danger he was in and that the only thing was to cut that gut off and stitch up the passageway into the peritoneal cavity from this hernial sac. He agreed. The speaker did the operation, first opening the inguinal canal, the gentlemen could see the incision there, through the abdominal cavity. He went down into the peritoneal cavity, took the gut where it entered the external ring, cut it off squarely, united the two proximal ends with a Murphy button, dropped it back into the peritoneal cavity, had his assistants take hold of the gangrenous part of the gut and draw it outwards through the ring. Then he took catgut, made a purse-string suture around the ring and tied

that up, and that was where the genito-urinary part came in. The gentlemen could not see the scrotum very well. He simply cut off with the scissors the whole right side of the scrotum, including testicle and cord. The patient was almost pulseless when taken from the table, but by stimulation with coffee and hot water he was brought around in two or three days and the gentlemen could see his condition to-day, he having gained about 35 pounds since the operation. Another strange thing to see was that this man was suffering from tuberculosis and cough, spitting up tubercle bacilli, at the time of the operation. Since then his tuberculosis had subsided entirely or became inactive and he did not cough at all. The hernia had returned, which was perfectly natural. It was only a temporary catgut ligature and not expected to be permanent. The main purpose was to shut off septic and gangrenous condition from the peritoneal cavity. Twenty-two inches of small intestine were removed.

DISCUSSION OF DR. VALENTINE'S INSTRUMENT.

DR. KLOTZ said it was very important if the water-pan could be dispensed with.

DR. TUTTLE said he was delighted with the appearance of it and especially with the megaloscope attachment. It certainly brought out very clearly some of the features of the urethroscope which in the old urethroscopes had been very obscure. He thought the light would not be very permanent, judging from the size of it there, but of course only experience would demonstrate how long one of those lamps would last. It had evidently lasted very well here.

DR. ERDMANN: It was a most delightful light and the absence of the complicated tubing was certainly a wonderful advance. While he did not see the absolute necessity of the megaloscope, still he could see the day would come when it would be quite an advantage, and when he might require a megaloscope himself.

DR. VALENTINE said the doubts regarding the permanency of the lamp were entirely disproved by the fact that the lamps which the gentlemen had seen had been used in about 100 urethroscopies.

As to the expensiveness of it, it was certainly within one-quarter of the price of the Oberlaender urethroscope.

As to permanency of the battery the manufacturer said he had had one run for 85 hours. He guaranteed 30 hours. The speaker said he presumed one of these batteries had already continued about 25 hours, he thought it was the one they had inserted into the urethra 34 minutes before. If they would feel the tube he believed they would find it cool yet.

DISCUSSION OF DR. TUTTLE'S CASE CONTINUED.

DR. ERDMANN congratulated Dr. Tuttle upon his result from the end-to-end anastomosis.

DR. TUTTLE apologized for bringing the case before the Section in an unprepared condition. He wanted to present it at the Academy a year ago, but going off duty it passed out of mind. He had thought nothing more about him until day before yesterday, when the man turned up in the Surgical Ward again and asked him to operate on him for the hernia, and said he had operated on him before for hernia. He thought it was very strange. He was unable to find it on the record of hernial operations. When he laid him on the table and found this half of his scrotum gone, he recalled the case. It was not shown with any idea

at all of its being a genito-urinary case or a case of reproduction of scrotal tissue. The scrotum had not been reproduced in any degree. It was a last resort. The man would probably have died as he had no chance to live without an operation, and after he got the gut resected and the hernial sac tied off—he did not stop to tie the blood-vessels—he took curved scissors and clipped off the gangrenous scrotum without any effort to stop the bleeding. The man was almost pulseless. He covered it up with iodoform gauze without any attempt to draw it together. The patient was 76 years of age at the time of operation—now 78, which the speaker said brought up a subject in which he was very much interested and had spoken of before another society of late—these operations on old men. In a series of operations since August last upon 92 cases, all over 50 years of age, averaging 65½ years, general operations from the magnitude of amputation of the thigh, hernia, fistula, resection of the intestines, hemorrhoids, there had been two deaths. Some of these cases were very old—one of them 92 years of age. The speaker said he did not know the man was that old when he operated on him; he afterwards found it out. It showed that these operations, where they were not suppurative processes, on old men were not nearly so dangerous as they were generally supposed to be.

Resection of the Urethra.—DR. J. P. TUTTLE reported a case operated upon by him at the Almshouse, July 19, 1898, for perineal fistula with complete closure of the urethra in front of the fistula, this stricture occurring in the membranous portion of the urethra. Fifteen years before patient had a severe gonorrhea which was followed by urinary difficulties, and six years before had complete retention and entered Chambers Street Hospital for an external urethrotomy, after leaving the hospital six weeks later there began to be recontraction till he passed no urine through the urethra at all, but only through the perineal fistula, and this with great difficulty, as the opening was very small. The patient was in the Almshouse nine days before operation, during which time it was impossible to pass a filiform through the anterior urethra into the bladder. After the incision was made in the perineum, the two ends of the urethra were found united by an attenuated fibrous band. This was excised by dissecting forwards until normal urethra was reached, a sound having been passed into urethra up to the stricture, and the urethra cut across with scissors through healthy tissue. The canal was found to be completely closed so that it would have been impossible for a filiform to get through. The posterior segment was dissected back till normal urethra was reached. The separation between the two ends of urethra was three centimeters. Three catgut sutures were put in the superior wall of the two ends and they were drawn together without difficulty, a 20 F sound was then introduced through the meatus and the balance of the circumference closed with continuous suture. The perineal wound was sewn up except that part opposite the line of suture; this was loosely packed with gauze. There was no leakage, wound healed in ten days.

A catheter was left *in situ* for two weeks, after this sounds up to 34 were passed. Patient then at end of the next week left the hospital and was not seen till following December, during which time no sound had been passed.

He was etherized and 32 F. passed. There is no trouble in voiding urine.

The author quoted the cases of Fuller, Guyon, and others, of resection of urethra where tissue flaps were used, and presented a table of eighteen cases of various authors in which the end-to-end anastomosis had been made, in some of which the separation had been as great as three centimeters; in some of these

cases fistula had followed the operation, but most of them had healed. He believes that the cause of the stricture is not of as much moment as the extent and character of the lesion in determining the best operation to do. If there is a large deposit of connective tissue involving the urethra he thinks resection preferable to external urethrotomy, as the latter operation gives no assurance that the tissue will not recontract.

DISCUSSION ON DR. TUTTLE'S PAPER.

DR. VALENTINE said he did not propose to discuss the paper at all except to verify the author's presumption that tissue-flaps were used in the restoration of the urethra. The case excited his attention, particularly, because it was held in France that the restoration of a urethra beyond three centimeters was not possible; that the extensibility of the urethra would not go beyond that.

DR. CHETWOOD said that Dr. Tuttle was certainly to be congratulated upon his result in this case, but would hesitate to generalize from it as a method to be employed in the majority of cases. He thought that urethro-perineal fistulae were generally easy to cure by operation when the normal caliber of the urethra was restored and proper drainage secured after external urethrotomy. Dr. Tuttle stated that the operation was suited notably for cases where the ends of the urethra could be readily brought together. When external urethrotomy proper was done under conditions in which the ends of the urethra could be brought together, there should not be any difficulty in the closing of the urethra or any undue recontraction subsequently.

Where there was innodular tissue it was proper to resect, which was apt to leave such a gap that the ends of the urethra often could not be approximated. Even under these circumstances a new canal could be formed as illustrated in Dr. Fuller's case and whether the urethra restored itself or whether the cellular tissue formed a new canal the result was good and there did not seem to be an undue amount of contraction. It appeared in Dr. Tuttle's case that the man was still having sounds passed at intervals of three weeks. He thought that generally after external urethrotomy for stricture it was possible to progressively increase the intervals between the passage of sounds and a patient would often have to return only once every six months or a year for that purpose. It was an exception after an external urethrotomy that the patient had to continue to pass his sound as often as every three weeks.

DR. TUTTLE said he knew Dr. Chetwood did not appreciate the fact that when he stated this man was still having the sounds passed he was reading from a hospital record which was written and closed about the 10th of January: that this man came in about the 1st of December and he supposed he had had the sounds passed about three times since then. The physician who did the work was not on the house staff now and he did not know whether he had had the sounds passed or not. When he speaker saw him he told him he was feeling all right and had not had any sounds passed for some time. As a matter of fact he was not having sounds passed at the present time. It was a mistake in his saying so and he had thereby misled Dr. Chetwood.

The speaker said he hoped the gentlemen noticed in the conclusions he made with regard to resection in these cases that he asked "would it not be better?" and said it would seem so. He did not say "he thought" in any one of these cases because he did not consider that he had any right to draw a conclusion from one case and say this ought to be done or ought not to be done. What he had written

was simply to bring out just some such discussion as Dr. Chetwood had taken up and he wrote it because this patient had had an external urethrotomy done; that he had remained in the hospital for six weeks having sounds passed after external urethrotomy. He did not think any one would say that he was not in good hands when in charge of an Attending-Surgeon at Chambers Street Hospital, yet after he left that institution the perineal fistula never closed up, but the anterior opening of the urethra absolutely closed. No passage whatever. Not only this, but the posterior opening of this urethra was almost closed. The man took five to ten minutes to urinate; had great difficulty and pain. This was one of the results which might occur from external urethrotomy. While he agreed with Dr. Chetwood in his statement that the majority of cases of urethral fistula would heal where the anterior urethra could be well dilated, there were cases in which there was a certain characteristic innodular, hard, cicatricial tissue around the urethra that no simple incision would cure. It was the same condition found in fistula about the anus; they might make the backward cut and the forward cut and slice about it all they wanted and leave it alone and it came right back again and it never got well.

Cicatricial tissue must be removed in order to have healthy tissue surrounding the wound. He had not had great experience in urethral fistulas, but he had seen these same masses around the anus and in recto-urethral fistulae, and when this tissue had been taken out and the healthy ends of the mucous membrane brought together they united and the patient got well. So also around the rectum. One case operated on last fall had been operated on seven times in New York hospitals and never cured. He dissected out all this tissue and brought some of the healthy cellular tissue outside of it together.

It was suggested in this case that if this tissue were taken away and the ends brought together, even though there were leakage and subsequent perineal fistula as the speaker expected, they would not have that mass of cicatricial tissue there and they could go on dilating the urethra. The result exceeded his highest expectations. There was no leakage, no fistula. The patient got along well and in three weeks passed a 34 sound without any difficulty. The last time in the hospital the House Surgeon passed a 37 sound.

In regard to the amount removed, Dr. Valentine had said that the French surgeons state that only three centimeters can be removed. The speaker said he noticed in looking over the table he had there, that he had one case in which $4\frac{1}{2}$ centimeters were removed, one in which $3\frac{1}{2}$ were removed, and four in which 3 had been removed and end-to-end sutures practised successfully in all these cases. While that made the limit it seemed that the operations, out of 18 cases he believed in all, there were six of them that had gone the whole limit anyway and had succeeded admirably after the removal of at least $3\frac{1}{2}$ centimeters of the urethra.

DR. CHETWOOD said he did not want to be understood as criticizing Dr. Tuttle's operation. He simply doubted the necessity of bringing the ends of the urethra together in most cases. As to the question of cutting out the adventitious tissue of the fistula, he more thoroughly done the better it was and the better the drainage thus established. Dr. Tuttle does not know that his case and other cases would not have healed up provided the adventitious fistulous tissue had been removed and he had not attempted to draw the ends of the urethra together.

The Treatment of Syphilis.—DR. B. LAPOWSKI.

In treating syphilis we mostly rely upon two remedies: Mercury and iodine.

Their salutary effect is due to their stimulant action upon the syphilitic poison. This action is exercised by the metallic element of mercury, which can be administered in pure form or in chemical combinations out of which the living organism extracts the metallic element.

That the metallic element of mercury exercises the curative action is demonstrated, especially regarding sublimate and calomel, (1) by Anuschat's observations; (2) by finding of reduced metallic mercury in the blood of a syphilitic patient who was treated by intravenous injections of sublimate; (3) by Smirnof's administration of globules of metallic mercury after hypodermic injections of calomel in syphilitic patients; (4) by numerous experiments upon animals which showed that nearly every combination of mercury when injected hypodermatically is decomposed, forming minute globules of metallic mercury around the area of the inflamed nodule.

In selecting the mercurial preparation we are guided by the amount of metallic mercury contained in that preparation and in choosing the method we are guided by the ability to administer the largest amount of mercury in the safest manner.

After reviewing the advantages and disadvantages of all known methods the writer comes to the conclusion that inunctions are the best and safest method, leaving to other methods a useful field of application in special indications. The principle underlying the effectiveness of inunctions is based upon the fact that the benefit derived from inunctions is mostly due to inhalation of mercury by the lungs and only partly to skin inhalation. Consequently all our endeavors during the course of the rubbings should be directed to selecting such a time and conducting such a manner of application as will insure to the patient the best possible chance to inhale the mercurial vapors. It makes no difference how we rub in the ointment so long as we take in as large an extent of skin as possible so as to insure larger surface for vaporization.

The method of inunction can be rendered less harsh by alternating it with the following *modus operandi*: A piece of muslin or linen is made into a bag like an ordinary pillow-case 50 centimeters long and 40 centimeters wide. Its inner surface is smeared over with 4 or 5 grams of the ointment and the bag is fastened to the shoulders or wherever convenient by means of straps. The ointment is thus next the skin and vaporization occurs from the body temperature.

The occurrence or absence of undesirable symptoms depends in nearly every case (idiosyncrasies excepted) upon what the physician does before, during, and after a series of inunctions.

Neither sex, nor age, nor form presents any contra-indications for their use.

Iodin preparations in the early manifestations of syphilis are only indicated in special forms of the early stage and during the existence of special symptoms, as headache, pains in the bones, while in the late stage of syphilis the administration of iodine is a classical rôle of treatment. It is always advantageous not to limit ourselves to the use of iodine alone, but also to give the affected system the benefit of mercurial action.

The safest way of administering and arranging the mixed treatment is to administer iodine for a certain period—two or three weeks—and then, after an interval of five or six days, proceed with the mercury, as the iodine will be eliminated by the time the mercury comes in contact with the internal tissues, thus preventing within us a toxic combination—biniodide of mercury—which is

usually formed on the surface of the skin when the two ingredients come in contact.

The other directs the especial importance of examination of the functions of the kidney during and before the administration of mercury.

Bathes- and hydrotherapy are often very useful, especially in syphilis of the nervous system, and especially hygiene is of great importance in the successful struggle against syphilis.

The questions when to begin and how long to continue the treatment the writer answers in the following way: The treatment is to be begun when the diagnosis of syphilis is beyond doubt; that is, when the skin or mucous-membrane manifestations of early syphilis appear. It is quite impossible to make a sure diagnosis before the appearance of the eruption, even if the hard chancre is accompanied with all its classical accessories.

The first series of treatment has to be a very active one for eight or ten weeks, so as to prolong the administration of mercury several weeks after the disappearance of the manifestations. The rubbings are renewed whenever the manifestations reappear and in the first two years, even without the occurrence of a relapse, in intervals of four or five months. After the first two years the treatment should correspond with the appearances of manifestations of the disease, and from such a symptomatic form of treatment the patient will derive not less benefit than from the chronic intermittent method of treatment and, moreover, is not exposed to the influence of an inorganic element alien, at best, to the organic matter of the body, if, indeed, it be not baleful.

DISCUSSION.

DR. KLOTZ said it was extremely difficult to discuss a paper which touched upon almost all the doctrines and questions regarding syphilis, which, as is well-known, were a great many. He should, therefore, mention only a few points.

It was claimed that more mercury was absorbed by innunctions than by any other method and that it did not leave the system immediately. It was hard to understand that the mercury which was left in the body from innunctions should be more under the control of the physician than the mercury left in the system from injections. As he had no more control over what had been absorbed from innunctions than from injections, the danger from the same must be equal in both instances. That innunction was the safest method could hardly be maintained, because it certainly was a method which caused salivation more than any other method—in particular, more than injections of the salicylate of mercury. If, as stated in the paper, it required certain precautions to make the method of innunctions a safe one, then this certainly held good for the other methods. If the same precautions were used for the prevention of mishaps in injections they were just as safe as the innunctions, and so were other methods.

Another difficulty in discussing the paper was found in the fact that all our knowledge of syphilis was simply empirical and that all the scientific methods of investigations could not be applied to its study. Therefore, all opinions of its nature were more or less hypothetical and it was just as impossible to prove the correctness of a hypothesis as it was to disprove it.

Another difficulty was the great difference in the course of the single cases, which rendered it almost impossible to correctly judge of the effects of any remedy or method of treatment. It was now claimed that during innunctions the mercury was absorbed by the lungs. This was a supposition only, not yet

proven. Formerly it was thought that the fats of the skin changed the mercury in combinations with the acids of the fats and that in this way it was rendered absorbable.

DR. GREENE said that as regards the method of administering mercury for the treatment of syphilis he believed with Dr. Lapowski that the inunction method was better than any other one method that they had at their disposal. In an article written by the speaker on the "Treatment of Syphilis," in the "American Text-Book Series," the volume edited by Dr. L. Bolton Bangs, he had advocated more strongly the application of mercury by inunctions than by any other method. His practice was to have the inunctions applied to different portions of the body on different days, and to cover the body from the top of the head to the bottom of the feet. Whether the mercury was absorbed by the lungs, how much of it was absorbed by the lungs, he was unable to state. That some of it was absorbed by the skin seemed undoubtedly true.

In 1889 Neuman read a paper at the Congress of Syphilographers in Europe in which he stated that the microscopical examinations made by him of sections of the skin taken from individuals who had had syphilis, but in whom the eruption had disappeared from view of the naked eye, showed the skin still infected with the syphilitic granuloma. After reading that article the speaker said he took a section of the skin from several syphilitic patients of his on whom there was no perceptible eruption, although there had been, and submitted them for examination to the pathologist, Dr. Fra Van Giesen. The examinations made by the pathologist seemed to substantiate the views held by Neuman and that had been the reason why, in the application of the inunctions, he had since advised that they be carried on over the entire body—that is, one section of the body daily. He found that the most valuable ointment to use was the Unguentum Hydrarg. of the United States Pharmacopœia when freshly made. There seemed to be—he was not enough of a pharmacist to know the reason why—the greatest difference in the amount of mercury absorbed whether an old or a freshly made preparation of the ointment was used. It was so difficult to make a fresh preparation that almost all druggists, unless directed very carefully to the contrary, would freshen up old preparations with a little lard or vaselin rather than go the trouble of rubbing up mercury to make a fresh one.

The speaker said it seemed to him that after all the most serious question that confronted us at the present time in the treatment of syphilis was this: How to avoid, in later life, manifestations of syphilitic disease in the nervous system of our patients. When one took a trip to Ward's Island and saw there 5000 insane people, of whom in the neighborhood of 3000 had paresis, and while syphilis perhaps could not be positively postulated as the only cause for paresis, it was undoubtedly true that a large proportion of those cases of paresis gave a history of having had syphilis. When the statistics seem to show that ninety per cent. of the cases of locomotor ataxia gave a history of having had syphilis, it seemed almost impossible to believe that syphilis did not play a factor in the causation of both those diseases of the nervous system, and as far as he knew in those cases of locomotor ataxia, as far as any statistics go, those cases of locomotor ataxia, those cases of paresis, give a history of having had all sorts of treatment for their original syphilis. The histories had not been kept carefully enough, apparently, for us to say whether a man who never had any treatment for his syphilis whatsoever would be more liable to have locomotor ataxia than a man who had been treated most carefully and thoroughly by the mercurial treatment. This question of the relationship of syphilis and its treatment

to degenerative diseases of the nervous system was the most serious one that confronted us at the present time in the treatment of syphilis. Was it possible, after all, that too prolonged or too severe applications of mercury in the treatment of syphilis might not have something to do in causing those lesions of the nervous system later on? At the present time we certainly were able to handle with comparative ease almost all of the cutaneous manifestations of syphilis or the manifestations of syphilis on the various mucous membranes, but we still seemed far from being able to prevent the causation in later life in many syphilitic patients of some serious affection of the nervous system.

DR. BREWER thought they would all agree, or most of them, with the author, that the method by inunction was perhaps the best method of administering mercury in this disease, in the majority of cases. He thought, however, that there was not enough evidence to warrant the statement that the administration of mercury by the mouth was wholly useless, as the reader would have them believe. Certainly the practice of a great many of our very ablest men had tended to show that a very decided improvement was noticed, and a very decided amelioration of the symptoms also followed systematic use of the drug by the mouth. Although for a number of years he had employed the method of inunction in the early treatment of syphilis, he had usually followed it by a more or less prolonged course of treatment by some of the preparations given by the mouth, and he had never had any reason to believe that this mercury was not absorbed, nor any reason to believe that it did not produce very beneficial effects on the course of the disease. Certainly it could not be that such able men as Otis, Keyes, Bangs, and a good many others who had used these methods for years with great success, had been entirely wrong. There was no doubt in his mind that they did get very gratifying and striking effects, but not as rapid and perhaps not as useful in the early stages, as we do by inunction. What evidences were there to justify the statement that a greater proportion of mercury was absorbed by the lungs? That was a new aspect of the case to him and one he thought extremely interesting. He would like to know what facts it was based upon.

DR. CHETWOOD said he should like to acknowledge the tribute Dr. Lapowski paid to the "eminent authority" with whom he had the honor of being associated, and to whom Dr. Lapowski attributed the fact that the internal treatment of syphilis was held in such good favor in this country. He should say, however, that that was rather a reflection upon the other members of the profession to think that they would follow blindly such teaching without some practical experience of their own upon which they formed their judgment.

Dr. Lapowski made the statement in regard to the treatment *per os* that when it was deprived of its scientific basis it was useless. Dr. Chetwood would amend that statement by saying that when deprived of its practical utility it was useless.

In regard to the scientific basis upon which it was alleged Dr. Keyes placed the value of small doses of mercury in syphilis, namely, after counting red blood-globules, noting their diminution in syphilis and increase under small doses of mercury, Dr. Lapowski tried to add a scientific, or do away with a scientific, explanation by begging the question. He said it might be due to a diminution of the watery constituents of the blood that such was the case, as mercury increased all the secretions. It could not be said that a man taking small doses of mercury, when the red blood-corpuscles increased on microscopic count, his color improved, he lost his anemia, and increased in weight, that the watery

constituents of the blood were being diminished to a very great extent. Furthermore, Dr. Keyes is misunderstood in his statement about the use of mercury in syphilis. Some had said that he made the statement that small doses of mercury cured syphilis because it was a tonic. He had said that mercury in small doses was a tonic and as such might be an additional benefit in the treatment of the disease. All of the various treatments for syphilis, in the speaker's judgment, were good—the hypodermatic, the inunction, and the fumigation—all had their uses. He was sure it was needless for him to say that the eminent author, to whom Dr. Lapowski had referred, had recourse to them all on proper occasions. It was not always a question as to the greatest quantity of mercury which could be gotten into the blood, but often the smallest amount which would produce the desired effect. We did not know that mercury cured syphilis. We did know that men having taken small doses of mercury for a long period, served out their time and remained perfectly well. Many men had gone down in history never having had tertiary lesions after such treatment and there was no reason why this mode of treatment would not continue to be used by those who have had beneficial results from it in the past.

DR. SWINBURNE said there was one question he should like to ask Dr. Lapowski. The author had stated that mercury administered during the first incubation, *i.e.*, between the primary sore and the eruption of the general cutaneous lesions, would cause anemia. It seemed to him, although he had never attempted to prove it either by microscopic or blood count, that during that period the majority of patients became anemic and if you added mercury and they still became anemic, it seemed to him that it was simply a proof of the uselessness of mercury during that period but not necessarily that it was mercury that was causing the anemia.

DR. LAPOWSKI, in summing up, said that Dr. Klotz's statement, that both the absorbed mercury after an injection of calomel and the absorbed mercury contained in the blue ointment were beyond our control, was quite correct. But comparing the number of fatal cases which followed inunctions during the last fifty years of their use with the vastly greater number of fatal cases after injections of insoluble salts during the last ten years of their administration, we will see that our inability to control the absorbed mercury is accompanied by less danger when inunctions are used than when injections are administered.

As to salivation, the author said he could not agree with Dr. Klotz's opinion. If the patient is watched well, if the conditions of mouth, teeth, and excretory organs is looked into before and during the administration of inunction, salivation will be hardly seen. Kaposi even says he never saw a case where inunction rightly administered was not borne well by the patient (p. 494).

As to the question of absorption of mercury by the lungs or by mouth, the author said he could only state that at present the opinion was prevalent that mercury was mostly absorbed by lung inhalation and only partly by the skin. The only questionable point was whether that portion of mercury which was pressed in during the inunctions in the hair-follicles and the open glandular ducts was absorbed directly by the lymphatics and blood-vessels or was taken in by skin inhalation. The fact that mercury was not found beyond the follicles, in the deeper layers of the skin, seemed to him to speak more for inhalation than for absorption. Furthermore, mercury does not pass through a living, healthy uninjured layer of epidermis. This was proven microscopically and clinically by Filchae's experiments upon himself. Numerous clinical observations, the presence of mercury in urine of patients who had never used mercury either ender-

matically or internally, but lived in the same room with patient: who used inunctions, tend to show that mercury is absorbed by inhalation.

Whether the parasyphilitic nervous affections are due to the syphilitic toxin, or to an auto-intoxication, is hardly possible to decide at present. In regard to the possibility of auto-intoxication being the cause, the author said he would venture to suggest the following remark: that such cases of syphilis in which the functions of the kidneys and liver were interfered with owing to the destruction of tissue by syphilitic virus, the system can easier suffer from auto-intoxication and show para-syphilitic manifestations than when the action of these organs is normal, as in the latter case the poisons manufactured within the body are more easily neutralized by the liver and excreted by the kidneys.

As to the question of mercury upon the red blood-corpuscles the author said he did not question the importance of an increased number of red blood-corpuscles, but what he did say was that while in 1876, the date of the first publication of Dr. Keyes' experiments, an increased number of red blood-corpuscles could be accepted as a proof of a tonic action of mercury, in 1896, the date of republication of the same statement, a qualitative examination of the amount of hemoglobin and not a quantitative examination alone of the red blood-corpuscles is required before conclusions can be drawn as to the tonicity of given doses of mercury.

Regarding Dr. Swinburne's remark, that both syphilis and the absorbed mercury produce anemia, the author said that mercury given in the period when early syphilitic manifestations appear tends to shorten the period of anemia, while, administered before the outbreak of the early manifestations, it not only does not prevent the appearance of anemia but evokes it at an earlier time than when mercury is given concurrently as to the outbreak of the early manifestations.

Selections.

CUTANEOUS DISEASES.

1. **Dermatitis Herpetiformis.**—W. ALLAN JAMIESON (Remarks introductory to a debate on the subject held at a special meeting of the Dermatological Society of London. *British Journal of Dermatology*, Vol. X., pp. 73, 118, 1898).
2. **Note sur les Dermatitis polymorphes douloureuses apropos of the discussion on Dermatitis Herpetiformis, held at a meeting of the Dermatological Society of London.**—L. BROCO (*Ann. Derm. et. de Syph.*, Vol. IX., pp. 849, 945, 1898).
3. **Histological and Hematological Examinations in a Case of Dermatitis Hallopeau. The Connection between Hallopeau's Dermatitis, Dermat. Herp., Duhring, and Pemphigus Vegetans.**—LEREDDE (*Monats. f. pr. Derm.*, Vol. 27, p. 381, 1898).

4. Histological Researches on a Peculiar Case of Dermatitis Herpet., with Formation of Epidermoidal Cysts.—V. ALLGEYER (*Arch. of Derm. and Syph.*, Vol. 47, p. 369, 1899).

I. We owe, according to Jamieson, the final isolation of dermatitis herpetiformis to Duhring, and the description he gave in 1884 holds good, even in minor points, at this day. All the types described by Duhring we ought to regard as belonging to dermatitis herpetiformis, even what is called "herpes gestationis." The hydroa vacciniforme and the recurring summer eruption described by Hutchinson are to be comprised under dermatitis herpetiformis. Polymorphism is one of the most characteristic features of the disease. Regarding the importance of eosinophile cells in dermatitis herpetiformis, he does not accept the view of Leredde and Perrin, that we can found a diagnostic test on the synchronous presence of eosinophile cells in the blood and serum of the bullæ, in dermatitis herpetiformis, as against their non-occurrence in pemphigus. But he is inclined to class dermatitis herpetiformis among those diseases in which there is an increase in the number of eosinophile leucocytes in the blood.

As to anatomic-pathological researches the microscopical findings of Elliot differ from the findings of Gilchrist. While Elliot is of opinion that there is some association between the sweat-ducts and the vesicle formation and locates the commencement in the rete and inter-papillary cones, Gilchrist noticed no alteration in the cells bordering on a sweat-duct, and regards the upper limit of the corium as the starting-point. In sections from a case of the erythematovesicular type under his care he saw evidences of the origin of the vesicles being in the upper part of the papillæ, but vesicles were also met with in the epidermis in close relation to a hair-follicle.

It is more likely that the disease is due to a neurosis, with disturbances both in sensory and trophic directions, than to a centrifugal development of some infectious agent, probably a toxin. Arsenic internally and ichthyol and sulphur locally give the best results in treatment.

RADCLIFFE CROCKER, in order to do justice to Tilbury Fox, whose pioneer paper on the same subject is unduly overlooked, adheres to the original name of hydroa herpetiforme.

He does not regard hydroa estivale in any way allied to hydroa herpetiforme. He describes a case where the herpetiform distribution, the most characteristic feature for the diagnosis of hydroa herpetiforme, according to Duhring, was absent. Personally, he regards hydroa herpetiforme as a clinical entity, but pathogenically it is allied to pemphigus, which it resembles in its chronic, recurrent, and uncertain course, and in the effect of arsenic and other drugs upon it as controlling and sometime curative agents.

C. Fox claims that the group now chiefly known as dermatitis herpetiformis (Duhring) was established by Tilbury Fox. He draws special attention to two points, when the diagnosis of dermatitis herpetiformis is considered, namely (1) the tendency to multiformity of eruption in any attack, and the change of type in different attacks, and (2) the tendency to herpetiform grouping. He does not consider hydroa vacciniforme as belonging to dermatitis herpetiformis. He regards quinine, iron, and especially cod-liver oil more effective than arsenic.

F. H. BARENDT relates a case of herpes gestationis, which he considers as belonging to the group of dermatitis herpetiformis.

S. TAYLOR gives his statistics, five cases among nine thousand cases of skin diseases.

MALCOLM MORRIS does not regard dermatitis herpetiformis as a trivial disease. He had seen four deaths which appeared to be the direct results of the disease.

PRINGLE considers all attempts to classify the affections grouped under dermatitis herpetiformis as futile and delusive, until we are in possession of positive facts as to their etiology. He does not consider dermatitis herpetiformis as a distinct disease, but as a clinical variety of a large and somewhat inchoate group of bullous affections. The presence of herpetiform grouping of the vesicles is, perhaps, as strong a diagnostic point as we possess, but all seemed agreed that it was not an absolute *sine quâ non*.

GALLOWAY directs attention to the peculiar vulnerability of the skin, which certain of the patients develop.

A. WHITFIELD reviews the question of the importance of eosinophile cells and considers that the presence of the eosinophiles cannot be regarded as an important symptom of the disease since cases of both erythema multiforme and pemphigus have been published, in which the combination of eosinophilia in the blood, with eosinophilia of the serum of the bulhæ, was present. H. G. Brooke and Leslie Roberts express the opinion that in the present state of our knowledge it is hardly possible to attempt an exact classification.

STEPHEN MACKENZIE does not consider either the polymorphism, the relapsing tendency, or the pruritus as symptoms sufficient to constitute dermatitis herpetiformis, but that vesicular lesions, although not necessarily required in any individual attack, occur, arranged in a herpetic manner, at some time in the course of the evolution of the disease.

2. This discussion prompted Dr. Brocq, after conference with Dr. E. Besnier, to publish a very elaborate article, in which he subjects the expressed opinions of the English dermatologists to a very minute criticism, taking up separately each point, and in the end giving his own conception of the discussed subject. The question of priority Brocq is inclined to decide in favor of Bazin, who first gave an accurate description under the name of hydroa bullosum and pemphigus arthriticus, of what Dühring later called dermatitis herpetiformis. Neither hydroa vacciniforme, nor impetigo herpetiformis, nor Hallopeau's pustular dermatitis can be brought in the same category with dermatitis herpetiformis. Only herpes gestationis and his multiform dermatitis (*dermatite polymorphe douloureuse aigue et subaigue*) belong to the class of dermatitis herpetiformis. As to the symptoms which accompany dermatitis herpetiformis, he is diametrically opposed to the view expressed by the English dermatologists, according to whom pruritus is very often absent. To Brocq pruritus is the most constant, the most important, symptom, even more important than polymorphism, which constitutes one of the objective characteristic signs of dermatitis herpetiformis.

Although, usually, general good health accompanies dermatitis herpetiformis, still death also may occur during an attack, and in such cases the precise cause of death is rather a complication, or an intercurrent affection, than dermatitis herpetiformis itself. Regarding treatment, Brocq is of the opinion that we do not know at present how to treat cases of dermatitis herpetiformis. Lately, patients have been treated with electricity, tonic-vascular remedies and

intravenous injections (*grand lavage au sang*), but the number of observations are not sufficient to draw conclusions.

Brocq elaborately considers the conception of the term herpetiformis and its significance in dermatitis herpetiformis. He thinks that Duhring used the term of herpetiformis mostly in the sense of an eruption composed of vesicles grouped in bunches upon a red basis. This distribution is very often entirely absent, and, nevertheless, the disease is accepted, diagnosed as dermatitis herpetiformis, as the other more important characteristic symptoms, as polymorphism, pruritus, evolution of successive attacks, and general good health, are present. Although the name of dermatitis herpetiformis, or Duhring's disease, is accepted in France as well as in other countries to designate a certain group of skin diseases, opinion varies as to what diseases are to be classified under that group. In order to show that he does not agree with Duhring's conception and definition of this group, Brocq made up his mind to call this group neither dermatitis herpetiformis nor Duhring's disease, but to reserve for this group the generic name of *dermatite polymorphe douloureuse*, with numerous subdivisions, according to the objective symptoms and evolution of the disease. Then the author gives his conception and subdivisions of *dermatite polymorphe douloureuse*, and concludes with the request to French dermatologists not to use the term dermatitis herpetiformis generally to designate this group of affections, but to apply this designation from this moment to a certain group only of *dermatite polymorphe douloureuse*, which is thoroughly characterized from the objective point of view by herpetic grouping of the lesions.

3. LEREDDE considers the pathological changes in the skin in dermatitis herpetiformis as of secondary nature, due to a secondary infection, while the primary cause of the disease is the change of the blood elements, namely, to presence of eosinophiles, which ranges between 22 per cent. and 33 per cent.

His former statements in regard to the importance of the eosinophiles were not shaken by the later investigations of other dermatologists, who claim to have found eosinophile cells in some cases of multiform erythema and of pemphigus, as what was accepted by the German investigation as pemphigus in the sense of the Vienna School, is really dermatitis herpetiformis, while the presence of eosinophiles in *erythema multiforme verum* shows only that there may be a certain relationship between this disease and dermatitis herpetiformis. He gives a histological, hematological report of a case of Hallopeau's dermatitis, from which it is seen that the changes in the blood and skin, as far as the condition of the cell is concerned, are the same. The vesicles formed in both diseases between the prickle-cells. The same takes place in *pemphigus vegetans*. The correctness of this last statement L. bases on personal investigations, and especially upon Fordyce's case (see this JOURNAL, Nov., 1897). The presence of eosinophile cells shows a pathological change in the blood. It has not a specific significance, it may happen in various diseases, but in Duhring's Hallopeau's, and Neumann's diseases it is a regular, constant symptom, and plays a significant part in the local changes.

The *eosinophilia* of the blood is the cause of the presence of eosinophile cells in the skin, showing that the eosinophile-producing organs are changed, that we have to do with a hematodermatitis. But what is the cause of the disease of the blood? It is probably of parasitic nature as the other diseases, syphilis and lepra, in which eosinophile cells are found, are parasitic diseases.

4. ALLGEYER reports a clinical history of a case of dermatitis herpetiformis

with presence of "milia" in the locations exposed to the constant formation of bullæ, etc. He examined microscopically sections of the intrascapular region where the "milia" were especially present, and found them to present two different varieties of cysts, presenting cysts of the sweat-glands and of the hair-follicles. Of twenty-four cysts examined, in nineteen the ducts of glands were primarily involved, and only in five the hair-follicles. A cyst is developed in the following manner: The constant shedding of the epidermis, the intense infiltration of the upper layers of the cutis, and the following superficial process of cicatrization have a deleterious influence upon the sweat-ducts interfering with its continuity. A retention-cyst is formed, increasing gradually in size, till it reaches the surface of the epidermis, discharging its contents upon the skin surface.

GENITO-URINARY DISEASES.

Complete Removal of Bladder, Prostate, Seminal Vesicles, Entire Urethra, and Penis, Scrotum and Its Contents for Tumor of the Bladder.

—DR. HOGGE (*Annales d. mal. d. org. génito-urin.*, p. 838, 1898).

The author presented the specimen and history of the patient before the Soc. Méd. Chir. de Liège, Dec. 2, '07. The specimen consisted of all the organs enumerated in the title, and was an enormous epitheliomatous papilloma of two-years' growth. Age of patient and time of operation not given.

The operation was performed January 3d, by Professor Winiwarter, assisted by the author, and was done by several stages.

First stage.—Lithotomy position, the bulb, membranous urethra and prostate exposed and separated from rectum and the wound tamponed.

Second stage.—Symphysis exposed, detachment of the suspensory ligament of the penis, insertions of the corpora cavernosa, symphysectomy. Hemorrhage from the plexus of Santorini stopped by tamponnade. Pubes separated by abduction of flexed thighs, which at this point caused rupture of bladder and hernia.

Third stage.—Separation of peritonæum from bladder and of the prostate from rectum, with the fingers, the patient being placed in the Trendelenburg posture.

Fourth stage.—Section of lateral attachments of bladder and urethra, ligature of ureters, patient being placed again in lithotomy position.

Fifth stage.—Implantation of ureters into the antero-lateral wall of the rectum, two catheters cut square being introduced into rectum into the ureters and ureters sutured into rectum.

Sixth and seventh stages.—Closure of symphysis with silver wire, the abdominal and perineal wounds with silk sutures, and a Mikulicz tampon placed behind the pubes. Recovery of patient.

The catheters were removed from rectum in forty-eight hours, and urine passed by rectum. By February 10th pains had disappeared, condition of patient excellent, gain in weight. There was left one fistula, from anterior wall of rectum, from which there was some escape of feces and urine. Patient went to stool only once a day, most of the urine passing by the fistula, and caused itching and discomfort in the anal region; otherwise good recovery.

Report of Case of Rupture of Bladder, Both Intra- and Extra-Peritoneal.—J. E. ENGSTAD, M.D. (*Northwest. Lancet*, p. 134, 1899).

The patient was first seen by the author fourteen hours after the accident; was carried five miles to the hospital before operation; patient was suffering agonizing pain, was in a state of shock, passage of catheter only brought a few drops of urine. Abdomen was opened high enough to enter peritoneal cavity. The rent in the bladder was found to be one-half inch intra- and one and a half inches extra-peritoneal. The cellular tissue was infiltrated with urine and the peritoneal cavity was flooded with it, but there was no evidence of peritonitis. The peritoneum was cleansed, the intra-peritoneal part of bladder wound was sutured with a Czerny-Lembert suture, the extra-peritoneal wound was closed except at its lower part, where the edges were trimmed and sutured with fine silk loosely to the cellular tissue. The abdominal wound closed except lower portion, a catheter inserted into the bladder, and wound packed with gauze. Result, recovery; discharge in five weeks, with small fistula, which healed in two months.

Painful Varicocele Symptomatic of Gummata of the Kidney; in a Case of Inherited Syphilis.—DR. LEGRAIN (*Annales d. mal. d. org. g  nito-urin* p. 1155, 1898).

The patient, 13 years old, presented himself, with a rather large and painful varicocele. He presented stigmata of inherited syphilis, was pale, very thin, and undersized. For eight months he had had severe pains in the left lumbar region. For three or four months a sense of weight was felt in the left testis, which became increased in size and painful. It was sensitive to pressure and the pain was spontaneous. The testis and epididymis were normal.

Palpation of the left kidney could be easily made, on account of the thinness of the subject. It was enlarged and presented two large nodules upon its convexity. Pressure elicited pain. Right kidney apparently normal.

Urine was sufficient in amount, no frequency, slightly acid, examination of the sediment showed numerous mononuclear leucocytes, granules, and red blood-cells, of which the hemoglobin was in part or wholly absent. No bacilli. Trace of albumin.

Treatment.—Iodidi of potassium, 2 grams, and 1 centigram of sublimate per day. Patient in hospital fifteen days. At his departure, the nodules in the kidney no longer felt, but the kidney was still enlarged, pain in testis and sensitiveness markedly diminished. The varicocele was still large. Urine free from albumin.

Renal lesions of heredity syphilis are classified by Fournier as follows: Amyloid degeneration, chronic parenchymatous interstitial nephritis (small, contracted kidney); gummata of the kidney isolated and circumscribed. This gummatus form he regards as exceptional in hereditary syphilis.

These gummata of the kidney do not exclude the existence of parenchymatous or interstitial syphilitic nephritis.

The beginning of the affection was insidious, and its progress very slow. As to the symptomatic varicocele, the author does not find it reported in observations upon renal gumma. The author states that large visceral gummata are not infrequent among Algerians with hereditary syphilis, at least of the liver and spleen, but this is the first he has met in the kidney.

Therapeutic Notes.

Treatment of Favus.—PETERSON (*Arch. f. Derm. u. Syph.*, Bd. 43, Ht. 44, 1898) softens the crusts with one-per-cent. carbolated vaselin, cleans the surface with soap and water, and applies tincture of iodine. Applications should be made twice a day. Epilation is not necessary.

Dermatitis and Other Toxic Effects Produced by Boric Acid and Borax.—WILD (*Lancet*, January 7, 1899) reviews the literature of the toxic effects of the drug externally applied or injected into the body cavity. They have varied from a slight hyperemia and formication in the skin to a poisoning sufficient to cause death. One case is described, in which a seborrheiform dermatitis, with alopecia, occurred. It was attended by considerable scaling, and recovered after cessation of administration. In another there was simple hyperemia, and in a third severe dermatitis, with desquamation, alopecia, and pus infection. Two classes of cases of intoxication should be noted—one in which large amounts of the drug are absorbed at once, as from lavage of a cavity, and the other in which a cumulative action is seen resulting from administration of small doses internally for a protracted period. (*Ther. Gazette.*)

The Treatment of Vesical Hemorrhage.—NOGUÉS (*Ann. des Mal. des Org. Gén.-Urin.*, No. 8, 1898) says that if it is impossible, for any reason, to remove a neoplasm giving rise to vesical hemorrhage, the bladder should be freed of clots by catheter or by incision and drainage, after which a 5-per-cent. solution of gelatin in normal salt solution should be injected and slowly drawn off. At first, it is injected in small quantities. After a time, a sufficient amount is forced in to fill completely without distending. The catheter is then removed and the solution remains. (*Ther. Gazette.*)

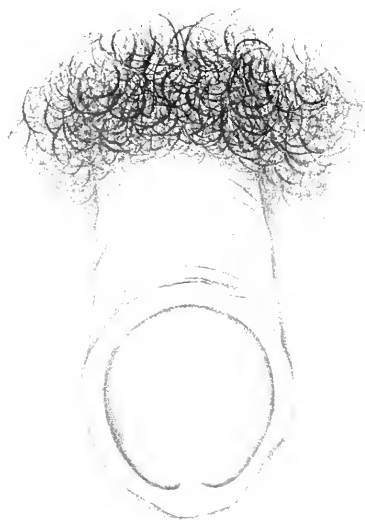
Treatment of Syphilitic Alopecia.—GAUCHER (*Journal des Practiciens*, April 1, 1899) orders this lotion to be applied frequently to the scalp:

R Corrosive sublimate.....	3
Chloral hydrate.....	60
Resorcin	30
Castor oil.....	15
Alcohol	3,000.

M.

Tincture of cinchona may be substituted for the alcohol, but tends to redden the hair.

Brewer's Yeast for Boils.—BROUQ (*La Presse Méd.*, January 28, 1899) has revived this old remedy. He used it in eleven cases with good results, himself among them. The furuncles to which he was subject disappeared on taking for some time a teaspoonful of yeast in a glass of wine or water before meals. It must be fresh. Baker's yeast may be substituted for it.—*Med. News.*



ILLUSTRATING DR SWINBURNES ARTICLE ON
SCLEROTIC NARROWING OF THE MEATUS.

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Original Communications.

REPORT OF A CASE OF SCLEROTIC NARROWING OF THE MEATUS.¹

BY G. K. SWINBURNE, M.D.,

Surgeon to Good Samaritan Dispensary, New York.

THE case which I report and which is pictured in the accompanying lithograph is unique in my experience, and for that reason I wish to place it upon record.

Dr. R. Hottinger of Zurich, in an article entitled "Acquired Narrowing of the External Orifice and of the Anterior Portion of the Urethra," in *Centralblatt für die Krankheiten der Harn und Sexual-Organ*, 1897, p. 525, reports three cases of his own and refers to two cases reported by J. Grieg Smith in the *Bristol Medico-Chirurgical Journal*, September, 1884, under the title, "An Undescribed Form of Stricture at the Orifice of the Male Urethra," and four similar cases reported in 1863 by Doutrelepont, which my own case resembles in one or two particulars, but in some other particulars perhaps differs essentially. Still the resemblance is sufficient for me to refer to these cases after reporting my own.

My patient, of vigorous build, a Hebrew born in Russia, 29 years old, came to the dispensary in January, 1896, complaining that he could only pass his urine with great difficulty and pain, the urine coming in a minute stream or in drops. The meatus was so narrow that it would

¹ Read before the American Association of Genito-Urinary Surgeons, at West Point, June, 1898.

only admit a No. 6 F., and that, too, with great pain. The entire meatus was occupied by a mass of sclerotic tissue, cartilaginous to the feel and extending back into the urethra the distance of the glans penis. Six years before he had a chancre and suppurating buboes. The sore, however, was situated back of the corona, and he gave no other history which would lead to a diagnosis of syphilis. Three years before he had a gonorrhea which had lasted two months.

He could give no definite history as to how long his present trouble had existed, but it had come on gradually, and he had attributed his condition to masturbation. My own impression, however, was that it was the condition which had induced a tendency to masturbation. There was no history of a sore, or ulceration, nor of the use of caustics or irritation at or within the meatus.

Before attempting anything for his relief, I presented him at the next meeting of the Society of Dermatology and Genito-Urinary Surgery for diagnosis and for suggestions as to treatment. Nothing definite was elicited. Some thought it was a strictured condition dependent upon his previous gonorrhea, or the use of irritating injections. One thought it might be due to syphilis. It appeared to me as if the mucous membrane itself had undergone a transformation into sclerotic tissue. Although there was a line of demarkation, still the surface was even, the surface of the sclerotic tissue running into the mucous membrane covering the glans, and I was not inclined to accept either view presented.

For treatment, I divided, under cocaine injected into the tissues beneath the meatus, the meatus and urethra as far back as this condition extended, cutting on the floor until I had cut entirely through the tough fibrous mass. I was then able to pass with ease a 28 F. olive-tipped bougie into the urethra, and met with no obstacle further back. The bleeding was slight. The wound was kept open by the daily passing of sounds until it healed. After healing, the meatus had contracted to 20. The patient was comfortable. He came to me a year later, and I was delighted to find that there had been no further narrowing, and the cartilaginous feel had disappeared to a great extent, though the sides of the meatus and the urethra just within still retained the white sclerotic appearance, though not to the same extent. I have not seen the patient since.

The condition was entirely unlike any strictured condition at or near the meatus I have ever met, due either to gonorrhea or post-gonorrheal disease, or to narrowing, the result of chancre or chancreoid ulcerations.

Two of the cases reported by Doutrelepon, and the two reported

by J. Grieg Smith, with the three reported by Hottinger, seem to have several points in common. These cases seemed to take their origin in adhesions forming between the prepuce and the glans penis, together with a scleroderma forming on the surface of the glans either uniform or irregular, involving the entire thickness of the mucous membrane and extending into the connective tissue beneath. As this process reached the meatus, this became involved and the process extended into the urethral canal as far back as the squamous epithelium reached. The portions involved became hypertrophied, the glans becoming larger than normal, the surface white and glistening where the submucosa became transformed into sclerotic tissue. In some of the cases there were cracks and fissures which caused itching. The portion of urethra involved, with the meatus, was of cartilaginous hardness and could be felt even through the sclerosed glans. The meatus narrowed down to a minute opening varying from 3 F. upward, according to the degree. The urine came in drops and was expelled with difficulty, attended with much pain. The adhesions between the glans and prepuce occurred in front of the corona, so that a probe could be passed around the corona back of the adhesions. The prepuce was edematous. In some of the cases there was a previous history of a balanoposthitis.

For treatment, meatotomy was performed and then an attempt made to dilate further with bougies and sounds, but the tissues would rebel and recontract. In none of the cases reported was the opening enlarged beyond 20 F., and evidently the incision was not carried beyond the sclerotic tissue. Such being the case, it seems to me that it could only have ended in failure.

In my own case, the patient having been circumcised, there was no phimosis, no prepuce to become involved, and the process began at the meatus. As the spongy tissue was involved in the process, these cases remind one of the sclerotic plaques occurring in sclerosis of the corpora cavernosa.

A CASE OF ERYTHÈME INDURÉ DES SCROFULEUX OF
BAZIN, WITH MICROSCOPICAL FINDINGS, SHOWING
ITS NON-RELATIONSHIP TO TUBERCULOSIS.¹

BY CHARLES TOWNSHEND DADE, M.D.,

Attending Dermatologist, Randall's Island Hospital, New York.

JOHAN C., aged 42, a clerk, married. Has two healthy, well-grown boys; lost one child, year and a half old, of tuberculosis (?). Wife's two brothers and two uncles died of tuberculosis; her father and mother still living and in good health; she herself a strong, healthy, robust woman, giving no history of any miscarriages.

Patient himself is a well-built, stocky man, weighing 165 pounds. Health generally very good—somewhat anemic now. Has cold hands and feet. He is rather averse to exercise, otherwise habits good; does not drink or smoke to excess. No family or personal history of syphilis or tuberculosis, and patient presents no evidences of either. Both his parents are living and said never to have been ill, his father a particularly strong man.

This, the patient's third successive attack, commenced during the latter part of October, 1898. Beginning then with two nodules about the size of a large pea "beneath the skin," to use patient's words, one on the inner aspect about middle third of each leg, the lesions, increasing gradually in size, had slowly come to surface and reddened, new ones continuing to appear and undergoing the same changes up to the time the patient presented himself at my office, December 11 last, when the following conditions were noted, shortly after which the accompanying sketch was made.

Inspection: No edema or swelling of either leg, no varicose veins. On the postero-internal aspect of right leg, about middle third, were several (seven in all) discrete, fairly round, red plaques, varying in shade from a fairly bright red in the later ones to a more or less dark or violaceous red in the larger and older ones. Deepest at the center, the redness faded insensibly at the circumference of the plaques into the normal color of the skin. There was a little desquamation over the center of some of the smaller plaques, spreading out over the surface of the larger ones—well shown in the illustration. The lesions varied in size from a three-cent piece to an inch and a half in diameter

¹Presented to the New York Dermatological Society.

and appeared but little prominent above the surface of the skin. Two or three brown stains marked the seat of earlier lesions that had undergone resolution and absorption. There were no cicatrices to be observed anywhere on the leg. The patient stated that none of the lesions had ever broken down to form ulcers, always going away "of themselves," leaving stains in the skin which finally, too, in time disappeared.

Palpation: There was no appreciable difference in temperature between that of the plaques and the healthy skin; pressure with the finger caused no pain, and the redness made to disappear on slight pressure returned quickly. On passing the hand over the lesions they were felt to be only slightly prominent, the smaller ones not at all. On grasping the lesions they were appreciated to be indurated nodes or masses *in* and deeply *under* the skin, freely movable on the tissues beneath, with ill-defined, doughy borders extending somewhat beyond the limits of the surmounting redness and losing themselves gradually in the surrounding tissue. One nodule was made out on the outer side of the leg about the size of a hazelnut, deeply embedded, not *seen*, but only *felt* subcutaneously and freely movable. Over the center of the largest plaque the finger, as it passed, could appreciate that softening here had taken place, though somewhat deeply beneath the skin, the tip of the finger sinking into a cup-like depression with well-defined walls formed of the surrounding induration, the overlying skin apparently not being at all thinned. The left leg presented on the internal aspect below the calf two lesions, one considerably larger and more advanced than the other, corresponding in general to those observed on the right leg. Over the center of the larger lesion here the appreciation of softening having taken place beneath the skin was still more pronounced, and it was from this point the specimen for microscopical examination was later taken, leaving the wound seen in the plate. (This healed rapidly under dressings with balsam of Peru.)

The patient complained of no spontaneous pain or inconvenience from the lesions, except sometimes after prolonged standing, when he said they ached somewhat. No pain in the joints ever noticed. He came to me this time on finding out he was being treated for syphilis. He had taken medicine regularly for one month, new lesions continuing to appear, the old ones persisting during this period. The prescription shown me was one containing pot. iod. gr. xx. and bichloride of mercury gr. 1-32, to be taken four times daily.

I had seen the patient during his two previous attacks, when he attended my class at the Vanderbilt Clinic, and he had been assured then of the non-syphilitic nature of his trouble; hence his present disaf-

fection. His first attack occurred the end of October, '96, and was the most severe. I remember him hobbling into the room complaining of the pain that walking caused him. The lesions were observed to be not so very painful on pressure, however; were all situated on the

FIG. 1.

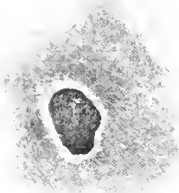


Erythema Induratum.

postero-lateral aspect of the legs, the right being more involved than as now, and presented the general characteristics of the present attack. The case caused some little discussion at the time, syphilis being ruled out, and though the want of the usual play of colors, the absence of

lesions along the front of the legs, and the lack of the usual tenderness and pain on pressure were all against erythema nodosum, it was considered to be, however, an example of this disease and photographed as such. He sent for me the next day to visit him at his home. His

FIG. 2.



Erythema Induratum Showing Ulceration.

legs were giving him considerable pain, otherwise he appeared in good shape. He had no pain in any of his joints, and there was no elevation of the body temperature. His business compelled him to be on

his feet a good part of the time. Tonics were prescribed and rest in bed advised. I saw him once or twice again, and in a few days he was about and had resumed his visits to the clinic. He was not particularly troubled again, though new lesions came in the meanwhile and none had disappeared when he ceased attending the clinic, which he did after about two months. He turned up at the clinic the following October with precisely the same outbreak as the year previous, though not so severe this time. The lesions were not tender and inconvenienced him but little now after walking. They continued to appear as previously during his visits to the clinic, the older ones making but little advance toward elimination before he was again lost sight of. On the strength of the diagnosis of erythema nodosum the year previous, this was again made, as it was, without much consideration, for the *third* time made when he presented himself at my office last December. *Then* I began to think as perhaps I should have earlier. He told me that he had ceased coming to the clinic because he couldn't spare the time, and, though the nodules had not bothered him any further—new ones continuing to appear from time to time—it was not until late in the spring of both years that he was entirely free. They never had broken down to form ulcers, he stated. This present attack, as stated above, is the third successive one, beginning, as the others had, at the same time in the autumn. Now, this triple recurrence was a very strong point against erythema nodosum, as well as the prolonged course of the first two attacks. These facts, together with the indolent character of the individual lesions, the continued evolution of new ones, their situations on the backs and sides of the legs, rather than down the front, their beginning in the hypoderm, the absence of constitutional symptoms and of tenderness of the lesions and the lack of the usual sequence of colors, all seemed to indicate that it was not a case of erythema nodosum that was confronting me, but an example, and a very clear one, of the disease called by Bazin "Erythème Induré des Scrofuleux." Bazin's description of this disease in his "*Leçons sur la Scrofule*," second edition, 1861, in which he differentiates it from erythema nodosum, bore out in all particulars the above findings, and I observed particularly his saying, "the lesions did not ulcerate."

Besnier says (*Annales de Derm. et de Syph.*, t. ix., 1899) the lesions only ulcerate accidentally in response to external injury. This point I especially noted, for in the literature upon the subject of erythema induratum (and this was extremely meager and fragmentary) I found that many of the cases reported as this disease, or thought to be it, *had* as their salient point necrosis with ulceration of long standing, and seemed in many of their

other features to partake more of the nature of tuberculous manifestations of the skin than did, it appeared to me, the case I had in hand. With the idea that, at least in the form of the disease, my case presented the term "scrofulous" in the sense tuberculous was misleading, I determined upon a microscopical investigation. Having established the diagnosis of my case, I wanted to know its nature. In this I was further urged by the absence, as I then thought, of either histological examination or experimental investigation bearing upon the nature of the disease. Audry's article (*Annales*, t. ix., 1898) was then entirely unknown to me, as it was to Dr. Ewing, who kindly studied the specimens submitted to him and reported as follows: "A section through the specimen exhibits the changes of a subacute exudative inflammation. The derma is diffusely infiltrated with polynuclear leucocytes and some mononuclear cells. The leucocytes are so abundant in some foci as to form minute abscesses. Elsewhere they lie in rows between the dense connective-tissue fibers. The mononuclear cells are distributed uniformly among the others. The walls of the small arterioles and capillaries are much thickened and swollen. Some appear to be compressed and occluded by swollen endothelial cells and by circumvascular collections of leucocytes. Some vessels have ruptured and the tissue is considerably infiltrated with extravascular blood. There is nowhere any evidence of necrosis, of simple round-celled infiltration, or marked fatty degeneration, or of the formation of miliary tubercles. Mast cells and eosinophile cells are moderately abundant, and there are in addition some peculiar large fusiform cells containing many large yellowish granules. In sections stained by carbolic fuchsin no tubercle bacilli could be found. In section stained by methylene blue a few cocci were seen on the surface, but none in the deeper tissue. A guinea-pig was inoculated with the fragments of tissue and the oily fluid that accompanied the above specimen, and six weeks later killed, no trace of tuberculosis being discoverable in the glands or elsewhere."

From the above histological and bacteriological findings it appeared warrantable to conclude that the "Erythème Induré" of Bazin could be considered in *no sense tuberculous*. This deduction was arrived at, as before stated, without any knowledge of Audry's having made a similar one in his paper above referred to. The two independent conclusions, then, would seem to strengthen each the other on this point and may, I trust, lead to further investigation as to the still obscure etiology of this singular affection, which, for the present, may at least be considered but a simple subacute inflammatory manifestation, keeping for it the title, "*Erythema Induratum*," and dropping from that of Bazin the, to my mind, misdescriptives, "*des scrofuloux*."

To return briefly to the consideration of the course of this third attack. The cavity resulting from the removal of the roof, so to speak, of the central softened area of the large plaque on the left leg healed very rapidly under simple dressings, as perhaps no tuberculous lesion would have done without other interference—curretting, etc. This portion of overlying skin, with the fragments of tissue and an oily fluid—there was no pus—obtained from beneath it, served as the material in Dr. Ewing's investigation. For two months I saw the patient at short intervals, during which time several new nodules appeared, the old ones gradually getting smaller. On the right leg the large plaque in which softening had taken place was entirely absorbed by the end of January. No softening had occurred in any of the other lesions. General tonic treatment, with systematic pressure upon the lesions, was the plan pursued. I last saw the patient May 2, after an interval of six weeks. There were then but three lesions—all new ones, however, and had appeared but recently—the others having in the meantime disappeared, leaving brown stains. Two of these lesions were on the left leg, one just above the tendo-achilles, the other, somewhat larger, a little higher up. The one on the right leg was only to be *felt* beneath the skin on the upper outer part posteriorly. The lesions were all small—the largest being the size of a marble—and presented the same general characteristics noted of the earlier ones. The patient was in very good shape and appeared cheerful at what promised to be the longest of any attack yet.

63 East 56th St.

INDURATED ERYTHEMA AND NECROTIC GRANULOMA
IN THE SAME SUBJECT.

BY JAS. C. JOHNSTON, A.B., M.D.,
New York.

(From the Loomis Laboratory of Cornell University.)

THE case is the one from which material was taken for the studies embodied in an essay of mine on the "Paratuberculosis," recently published in the *Philadelphia Monthly Medical Journal* (Feb., 1899). There is necessarily some repetition, for which I must crave the indulgence of those who have honored me by reading it.

History.—The patient has been under my observation for two years and is now sixteen. She is employed as a dressmaker's assistant, and stands more or less constantly. Her appearance is unhealthy, skin thick and coarse, flesh flabby, and anemia pronounced. There is a family history on both sides of tuberculosis, and the girl herself has enlarged cervical lymph nodes, none of which have as yet broken down and ulcerated. She has twice been rejected as an insurance risk. Her menstrual periods are now regular in time and amount. The skin of the extremities is of a livid hue, cold, and on the hands and legs edematous. The case is classic in all these general particulars. Colcott Fox¹ and Galloway have drawn especial attention to the tendency in these young women to peripheral blood stasis, evidenced by chilblains, acroasphyctic erythema, and angiokeratoma.

The description of the condition of the legs below the knees corresponds closely with Bazin's original account of his *erythème induré des scrofuleux* in his "*Traité de la Scrofule*." Here and there irregularly dispersed, chiefly on the extensor surfaces, are numerous patches, some elevated above the surface, others only to be felt beneath it as diffuse infiltrations. The infiltrated areas shade gradually into the surrounding skin and vary greatly in size from a beginning lesion, a quarter-inch in diameter to lesions two to four inches across. Their color is a bluish-red at first, the red tint deepening with increase in size. Pigmentation is a common sequel to involution; scarring seems to result whether ulceration occurs or not. When the process reaches the epidermis, the latter becomes thinned by exfoliation and ulceration through

it may take place. The ulcer, indolent and ragged, discharges a thin, sometimes blood-tinged, pus through a small mouth communicating with a larger cavity beneath. Ulceration has occurred in this instance only once or twice, but in graver cases, multiple openings may be formed which communicate with each other by subcutaneous fistulas undermining large areas. The lesions are generally painless and show little tendency to spontaneous healing. The condition in its early stages closely resembles erythema nodosum, but is more chronic, ulcerates, and shows none of the latter's exquisite tenderness; later it simulates an ulcerative syphilide, but specific treatment has only a deleterious effect upon the lesions. Galloway² has recently made an effort to divide erythema induratum into two classes, basing the division on clinical grounds. These are insufficient, since all forms may occur in the same subject.

On the extensor surfaces of the hands and forearms as far as the elbows, a totally different condition, which I have termed "necrotic granuloma," presents itself. The difference is in the clinical appearance and histology; to my mind, it is only another expression of the constitutional vice underlying the erythema of the lower extremities. This affection is the most variously named in all dermatology, the terms corresponding to slight variations in the clinical type. It would be a real service to this branch of medicine to replace them all by an appellation which fairly describes the main features. The nodules have been called acnitis and folliclis by Barthélemy;³ *acne varioliformis* of the extremities by Fordyce,⁴ who first reported on the histology in Bronson's case; disseminated folliculitis, Brocq; hydradenitis suppurativa, Pollitzer;⁵ idrosadenitis, Dubreuilh;⁶ spiradenitis, Unna;⁷ nameless granuloma, Hallopeau;⁸ tuberculide, Darier;⁹ necrotizing chilblain, Allen;¹⁰ *acne necrotica*, Boeck;¹¹ *acne varioliformis*, Hebra;¹² *hydrosadenitis phlegmonosa*, Verneuil.¹³ Unna Boeck, and Hallopeau class them all together. It is easy to see how the confusion has arisen, for the clinical picture varies with the site of the lesion. When a hair occupies the center of a nodule, the features of *acne varioliformis* or *necrotica* are present; if the changes lie about the coil-glands, hydradenitis or spiradenitis: in certain cases, involvement of the sebaceous structures is the principal characteristic; again, on the extremities, when asphyxia is prominent, it is called necrotizing chilblain, feeble circulation, as in erythema induratum, merely determining the site of the process. Pustulation is purely adventitious. Unna says "the assistance of ordinary pyococci is no more required here than in *acne pustulosa*."

Three cases have fallen under my observation, two in young women,

one in a youth of eighteen. In each, the lymph nodes of the neck were considerably enlarged, having in one instance broken down. The following description is taken from the subject of this paper. Her necrotic granuloma is of the chilblain type. The eruption consists of pale nodules, at its inception situated in the subcutaneous tissue or in the deep layers of the cutis. Their course is extremely indolent; a single nodule from evolution to disappearance may persist as long as a year. They are not painful and are very slightly sensitive to pressure. In the course of time they approach the skin surface and are no longer movable under it. The color changes to a rose, then to a coppery-red tint and the lesions become papules. The contour is at first rounded, flattens on top, and at last shows a central depression as necrosis takes place. A plug of dead tissue capped with an adherent crust may be removed or falls out of its own accord. When they occur on the extremities in a subject with poor circulation they are usually surrounded by a livid areola. The structure occupying the center of the nodule, follicle, coil, or sebaceous gland is destroyed and removed with the necrotic mass. A tiny pit is left after the plug separates; after a time, involution begins, usually spontaneously. A pigmented spot remains, which, on fading, leaves an atrophic, superficial scar. I have seen the forearms dotted to the elbows with these cicatrices. There is no tendency in the papules to coalesce, although they may be irregularly disposed in patches; every papule remains discrete throughout its entire course. The lesions bear a most striking resemblance to the small papular syphilide, which begins in the same way and shows the same resistance to treatment. History and long observation only will clear up the diagnosis, unless other signs of syphilis appear.

Twenty-three, or 57.5 per cent., of 40 cases collected in literature showed evidence of scrofulosis, keratitis, bone disease, or lymph-node enlargement. In my case it is noticeable that the evolution of a new crop of either eruption is not necessarily dependent upon a reawakening of the tuberculous process in the lymph structures. Climatic conditions seem to be the chief provocative agent. Both erythema and granuloma, other conditions remaining the same, appear in three years of observation to improve on the approach of summer. I have not discovered that local treatment in any form has an appreciable effect on the eruptions. Ichthyol, resorcin, and other antiseptics have totally failed. Mercury in plaster or in the form of a 5 to 10 per cent. oleate ointment may do transient good. The latter injunction over the lymph nodes seems to cause partial involution. My best success has been with general measures, forced feeding, life in the open air, and tonics, cod-liver oil and iron. The girl has never been so well as at present (May,

1899), when local treatment has been abandoned. Glands, erythema, and granuloma have almost subsided.

Histology.—At the time my essay was written, only Audry¹⁴ and myself had made histological investigation upon the lesions of erythema induratum. Since then, Dade¹⁵ has presented a thesis to the New York Dermatological Society, embodying Ewing's studies on the subject. An opportunity has been kindly permitted me of examining his preparations. As the tissue was taken from a late lesion, it supplements very well my work on an earlier stage. Neither Ewing nor Rispal (who examined the tissue for Audry) could find the tubercle bacillus in their sections or in the discharge from the indurations. Inoculation experiments, of which Rispal made two with the liquid and curettings, and Ewing one in the same way, failed. Adventitious cocci were found.

There is a strange dissimilarity in the histological findings, especially in the elements of the cell infiltration. In the early stage there is little change in the epidermis and upper layer of the corium, except for a dilatation and proliferation of the lining of the vessels. The pathological processes begin at the coil-gland level. The same vascular alterations are noted as above but are carried much further, the endothelium being so swollen and proliferated as to block the lumen in occasional instances. The connective-tissue fibers are disintegrated and separated by the great edema present. Cell-infiltration occurs in irregular masses between the fibers chiefly along the blood-vessels in much the same way as in lupus erythematosus and consists chiefly of lymphocytes and what I prefer to call epithelioid cells. The latter are derived apparently from both endothelium and connective-tissue corpuscles. They are spindle-shaped, fairly large, and contain a large ovoid, vesicular nucleus. Mast cells and eosinophiles I have not found; Ewing says they occur in small numbers. His "large fusiform cell" is, I believe, of endothelial origin as well as the large mononuclear leucocytes which Audry claims form the greater proportion of the exudate. The great number of polynuclear leucocytes in Ewing's specimens may be explained in two ways: the positive chemotaxis exerted upon them by the products of necrosis as well as by the cocci which he found. Giant-cells do not occur although the conditions are favorable to their production.

I have found necrosis in every specimen examined, and Audry describes it, although Ewing denies its presence. The clinical features of the disease should prevent such an assertion. There must be necrosis if there is ulceration. It occurs irregularly here and there, beside and in the midst of the cell masses. Ulceration results from extension to the surface of the necrotic process combined with exfoliation of the epi-

dermis. Audry describes a formation in the hypoderm of cavities with connective-tissue septa infiltrated by cells. He thinks they may have been filled with fat although fatty degeneration does not occur. Ewing does not mention the condition and I have not seen it. There is no tubercle formation: I agree with Ewing that the process is a subacute, exudative inflammation belonging to the class called by Unna "plas-moma," of which lupus vulgaris and erythematosus are types.

The same lack of success has attended efforts to find micro-organisms in necrotic granuloma. Diligent search has been made in the tissues by Unna, Hallopeau, the writer, and others, and except pus-cocci which play no ethological rôle, none were found. Gaston¹⁶ has carried on inoculation experiments in Fournier's clinic without result and auto-inoculation in Hallopeau and Bureau's¹⁷ hands has failed as signally.

The disease begins in the lowermost layers of the corium and in the subcutaneous fat. Cell-infiltration, consisting of lymphocytes, epithelioid cells in abundance, and giant-cells noted by every observer, begins about and follows the course of the vessels. From the original focus, it spreads in all directions but especially along the network surrounding the coil-glands, follicles, and sebaceous structures. The fully developed papule shows the cellular arrangement of tubercle, four or five rows of closely packed lymphocytes, a wider zone of epithelioid, and in the center one or more giant-cells. The blood-vessels become obliterated and coagulation necrosis follows, involving in destruction all the tissue in its area. The process generally extends along the sweat-ducts to the surface and the epithelium being lost, the necrotic plug separates.

Epithelial changes are secondary. Pollitzer, Unna, and Fordyce have held that those in the coil-glands were primary, Unna claimed them as the cause of the infiltration. The latter's stand on this question is difficult to understand or explain. He goes on to say that the coils at the center of the infiltration show more marked change than those at the periphery and remarks later (he has examined only one papule) that the chief lesion is found about the hair-follicle, which occupies the center of the nodule. He is led to believe that the morbid agent may gain entrance to the deeper layers along the hair and that a "secondary change from the coil-glands would not go well with the facts." In reality, both views are founded on insufficient observation. In the first place, the disease may occur where there are no hairs, and, in the second, while the earliest infiltration seen may be, often it is not in contact with either appendage. Hallopeau⁸ and Darier¹⁸ both state this and my observations confirm them. As to the entrance of the

agent along the hair, unfortunately for Unna's theory, the deeper parts are always first attacked. Although situated at some distance, the circulating poisons, whatever they may be, may reach the epithelium of the coil-gland in such strength as to cause its death. The changes are exactly those of cloudy swelling in the secreting structures of the kidney in the exanthems. The cells swell, become cloudy, nuclei disappear, contours are lost, and, finally, only a necrotic mass remains. A healthy duct may sometimes be seen leading into the mass. The same changes are seen in the hair-follicle. This inflammation is productive and belongs to the class of granuloma.

Both Bazin's erythema and necrotic granuloma are non-microbic, appear first about the blood-vessels in the deeper layer of the corium and hypoderm, and work outward from that point. Histological evidence, especially in the latter case, points to an infection of some sort and as it is not microbic, it must be toxic, and must be brought to the point of lessened resistance in the circulation. One process is productive and one exudative, but their association in the granulomata is too common to need remark. I have purposely refrained from debating their connection with tuberculosis since the point has been fully discussed in the essay referred to.

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CIRCUMCISION-SYPHILIS.

NEW YORK, June 12, 1899.

EDITOR OF THE JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES:

In perusing the June number of your valuable JOURNAL, the article, entitled "The Youngest Case of Initial Lesions of Syphilis," drew my attention. In my surgical experience of several years at the Good Samaritan Dispensary I can recall several cases of syphilis in infants, where the initial lesion appeared on the penis, at ages ranging from twenty-one days upwards. On questioning the parents, as to when these sores were first observed, a somewhat similar history was obtained, which was that they appeared after circumcision. On making inquiries among the orthodox Jewish population, I discovered that certain rabbis of the old school, who perform the Mosaic rites of circumcision, used the mouth as a means of stopping hemorrhæe. Mucous patches in the mouth of these venerable (venereal) gentlemen come in contact with the raw surface of the circumcision, thereby infecting another innocent being by their primitive method of surgical procedure, and initiating him in the vast army of syphilitics. Medical societies should propose laws, in which only regular practitioners should be allowed to perform this operation, under the usual antiseptic precautions, the same as any other operation. The excellence of circumcision, taken as a hygienic and sanitary measure, is beyond discussion, and in our large genito-urinary clinics at the Good Samaritan Dispensary, where the patients are mostly of the Jewish persuasion, syphilitic and gonorrheal patients, proportionately taken, show an unusually small number which are affected with syphilis. These facts being proven, it is a sad state of affairs that the initial lesion, with its syphilitic sequelæ, should appear innocently in these infants, from a cause which is not alone disgusting in itself, but at entire variance with modern surgical procedure.

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Selections.

CUTANEOUS DISEASES.

The Cutaneous Paratuberculoses.—JAMES C. JOHNSTON. Essay winning First Prize in the Department of Specialties in the *Phila. Med. Journal* Contest, 1899. (*Phila. Monthly Med. Journal*, February, 1899.)

The author's conclusions give a general outline of the points on which the argument is based. They are as follows:

1. There is a class of skin-affections analogous to the parasyphilitic, which may be called paratuberculoses.

2. They are not in themselves tuberculous, but develop and flourish on a tuberculous soil.

3. They may be divided into three groups: scrofuloderms, tuberculides, and dyschromia.

4. The scrofuloderms are pure pyodermias, by which characteristic they are separated from the next group, which are only accidentally pustular.

5. The tuberculides include a variety of affections, ranging from erysipelas perstans to lichen scrofulosorum, which are toxidermias, their characteristic in common. Those which approach lichen scrofulosorum more closely exhibit evidence which precludes the consideration of any toxin other than tuberculin. The status of others (e. g., lupus erythematosus) is in great doubt.

6. Tuberculous dyschromia includes only one affection at present, hyperpigmentation, which, except for its peculiar distribution, is that seen in many other cachexias.

7. The points upon which the right of a disease to admission to this category rests are: absence of tubercle bacilli, proved by microscopic examination and inoculation; occurrence in scrofulous or frankly tuberculous patients in more than a bare majority of cases; a pathologic anatomy at least comparable to that recognized for tuberculosis; and finally, if possible, as in the case of lichen scrofulosorum, experimental production of the disease by injections of tuberculin.

It will be recognized at once that the Paratuberculoses include many of the affections whose relationship to tuberculosis have been debated at great length in recent years, and as this point alone is under consideration, only questions of symptomatology, etiology and pathology are considered. The remark should be made that in many instances positive proof of this connection is lacking, and the author's contention is merely that in a large proportion of cases (over 50 per cent.) there is no theory which fits the facts so well.

SCROFULODERMS.—This group includes three affections: the large and small pustular scrofuloderms described by Duhring in 1881 and suppurative folliculitis. They are toxic in origin only in the sense that pus-organisms are more easily inoculated upon a skin weakened in resisting power by circulating poisons, the same condition being seen in other morbid states, syphilis, diabetes.

Large and Small Pustular Scrofuloderms.—These pyodermias are not perifollicular, are discrete, relapse constantly and pursue an indolent course. The large pustules occur chiefly over the sternum in small numbers, are rounded and flat with a red areola. Thin crusts result from drying which, on falling, leave superficial scars. The small lesion is more ecthymatous in character, occurs on the extremities and leaves punched-out scars. The microscope shows that their histology is not that of tuberculosis and one inoculation experiment has failed. These cases have invariably shown evidence of tubercular disease.

Suppurative Folliculitis.—This term refers particularly to the condition described by Kaposi in connection with lichen scrofulosorum. There is eczematous disease of the genital region with a sero-fatty discharge and a pus infection of the hair-follicles on the mons veneris which is usually primary. In over 90 per cent. of cases by Austrian statistics the condition occurs in the tuberculous. The connection spoken of is invariably present and it is to the lichen that the figures refer.

TUBERCULIDES.—This is much the largest group and is divided into two classes. The first includes lichen scrofulosorum, scrofulous gumma and erythema induratum, diseases in which tuberculosis is so constant that the few exceptions may be neglected. The second embraces erysipelas perstans, lupus pernio, lupus erythematosus and necrotic granuloma, which occur frequently in other conditions,

including perfect health. Clinical features will be described here only where there could be a doubt as to the affection meant.

I. *Lichen Scrofulosorum*.—The trouble here is not to establish a connection with tuberculosis but to prove the lesions paratuberculous. It occurs in the tuberculous in a percentage as high as 99; histologically, it shows the structure of miliary tubercle. Kaposi, Sack, Jacobi, Darier and Michelson have failed to find the bacillus in sections except in one instance. Nine inoculations in Jadassohn's hands produced no result; Jacobi's likewise failed. Pellizzarri obtained one positive result and Haushalter three, but the former thinks the occasional presence of the bacillus is a contamination like that of pus-cocci, and Haushalter's results in the absence of control experiments must be accepted with reserve. Additional evidences of toxine origin is found in the statements of Hallopeau, Schwenerger and Buzzi, who have seen the disease produced by injections of tuberculin in tuberculous patients.

Erythema Induratum.—This disease, whose clinical features have long been recognized, is not tuberculous since bacilli have not been found in the tissues, and inoculation experiments made with the sero-fatty discharge and tissue scrapings have failed. The condition occurs in a very large percentage of cases in the tuberculous, a point conceded even by Audry, who holds that it is not even indirectly related to scrofulosis, using the term to indicate a tendency of the tissues which predisposes them to granulomatous degeneration of the tubercle type. Histologically, there is no true tubercle formation. The process is a toxic edema followed by exudative inflammation and coagulation-necrosis, not fatty degeneration as Audry states, since ulceration is a part of the pathologic change. Syphilis may be excluded in the cases and the poisons of tuberculosis may reasonably be invoked to account for the changes.

Scrofulous Gumbo.—"Cold abscess of the skin" is closely allied to Bazin's erythema. Small collections of necrotic material are found here and there beneath the skin, forming a fluctuating tumor which may or may not open spontaneously. There are two varieties, one in which the infecting focus is distant and the other where it is near at hand. In the latter cases, lymphatic extension may result in true tuberculosis, but as a rule bacilli are not found and true tubercle-formation not seen. No inoculations have been made. The disease begins in the subcutaneous lymphatics and shows "plasmoma" formation, according to Unna, a tuberculosis of the lupus vulgaris type, in which even the reticulum appears. Later, coagulation necrosis rarely seen in lupus appears. Unna says that the peculiarities may be all ascribed to the fact that the poisoning is not due to a few bacilli in the skin but to collections of them in some subcutaneous organ. According to the strength of the poisons, the histologic picture varies. Unna has experimentally produced coagulation-necrosis by dipping plasmoma tissue in tuberculin, the change found here. It is rarely difficult to find other evidences of tuberculosis in the patients.

II. *Erysipelas Perstans*.—This is a rare condition presenting the clinical features of ordinary erysipelas without its specific organism. It is essentially chronic in course. Boeck states that it occurs almost exclusively in tuberculous patients and has been produced on the face and extremities in them by experimental administration of calcium sulphid. Kaposi thinks it results from absorption of poisons into the lymphatics from neighboring foci of disease especially in the facial form, from scrofulous rhinitis and lupus. Anatomically, the disease is a toxic inflammatory edema.

Lupus Pernio is a connecting link between lupus erythematosus, of which it

has been called an ulcerating variety, and erythema induratum. It resembles a livid chilblain on the hands and ears, ending in superficial ulceration. It is often seen with erythematous lupus and a fungous synovitis. Its course is chronic with little tendency to repair. Besnier says it occurs always in the tuberculous. Unna finds histologically a hyperkeratosis and a thinning of the rete, except its papillæ, which are infiltrated with cells and edematous.

Lupus Erythematosus.—Controversy of recent years has raged warmly over the connection of this disease with tuberculosis. There is partial truth in both views if it can be said that there are any degrees of verity. On one hand, no toxins have been separated and no bacteria demonstrated *in loco*. Inoculation experiments have failed. The histological changes are vasomotor dilatation, secondary poisoning of the tissue cells and inflammation, the whole resulting often in atrophy, rarely in necrosis—not tubercle-formation and coagulation-necrosis. On the other, by Boeck's and Hallopeau's statistics and the statements of others, a certain number of cases, greater than the proportion of tuberculosis in the population, are frankly tuberculous. The disease occurs with other paratuberculoses and transition stages between them have been seen. Boeck has twice produced it by administering calcium sulphid in tuberculous people. It is reasonable to infer that in many cases the toxins of tuberculosis cause the primary changes.

Necrotic Granuloma.—This disease has been described as hydradenitis, acne necrotica, tuberculide, etc., confusion arising from the site of the lesion about the various appendages or independent of them. The eruption consists of small discrete nodules, subcutaneous and pale at first, becoming red and projecting and terminating by central necrosis with tissue loss and scarring. Much work has been done by histologists, who are agreed that the process is granulomatous and terminates in necrosis. Being such, it must be infective. The infection begins deeply and betrays itself first about the vessels. It is non-microbic, as proved by inoculation and section examination, hence the infectious material must be brought from distant foci of disease. What the toxin is, frankly no one knows. As in erythematous lupus in certain instances, no theory fits the facts so well as the tuberculous. Cases have occurred in healthy people, but from the histology the reasoning is more sound here than in lupus erythematosus since it approaches closely that of tubercle.

Dyschromia.—*Pigmentary Tuberculide*.—Pigmentation is the only affection belonging to this group. It is disposed in a reticular network on the neck exactly in the manner of the syphilide, from which it can only be differentiated by the history. It results from a pigmentary degeneration of the lowermost rete cells.

The paratuberculoses exhibit a striking fact. They may, and often do, occur together, three or four even in the same subject. Lichen scrofulosorum may occur with Bazin's disease, gumma and folliculitis; lupus erythematosus with lupus pernio, erysipelas perstans, and necrotic granuloma; the granuloma with erythema induratum and the scrofuloderms. Moreover, transition stages have been seen from erysipelas perstans, a toxic edema, at one end of the line to lichen scrofulosorum, a tubercle granuloma at the other.

A Case of Favus of the Penis.—LEOPOLD GLUCK (*Arch. f. Dermat. and Syphl.*, Vol. 47, p. 339).

According to the author this case presents a unique condition. The patient was opened to a carcinoma of the pharynx. Favic scutula were scattered

over the head of the penis, prepuce, and sulcus coronarius. No other portion of the body was affected. This case goes to show that favus does attack not only hairy regions of the human body, but also parts where no hair-follicles are present.

Leucemic Tumors of the Skin.—KARL KREIBICH (*Arch. f. D. and S.*, Vol. 47, pp. 185-194, 1899).

In a woman of fifty-eight years of age a tumor-like swelling was noticed in the region of the eyebrows, sharply separated in its upper part by the middle fold of the forehead, and passing into a diffuse swelling of the nose in its lower part. Both areas were occupied by ovoid growths, and upon the skin a tumor of the size of a pigeon's egg was visible. The ear-laps were increased in volume. The tumors were movable with the skin, of brownish color. The skin covering the tumors was shiny and smooth, interwoven with large vessels, and gave a sensation of velvet to the touch. No desquamation was noticed. The tumors did not ulcerate, but side by side with them a diffuse form of leucemic affection of the skin was observed, presenting the clinical features of an infiltrated, moist eczema. The glands of the neck reached the size of walnuts and the cubital glands were also enlarged. The liver and the spleen were enlarged, the sternum painful to the touch. On the abdomen tumors of the size of a fist could be noticed. The proportion between the white and red blood-corpuscles varied between 1:28 and 1:20. The red blood-corpuscles, did not stain well, the central portion being poor in hemoglobin. No erythroblasts. The small mononuclear white blood-corpuscles were especially increased in number. Large mononuclear, multinuclear, polymorphonuclear, transitory cells, and eosinophiles were present. The process begins between the cutis and fatty tissue. The cells composing the tumor consist of mononuclear cells, with a small amount of protoplasm, the same form as found in the blood. Here the eosinophile cells are lacking. Mast cells or spindle cells are entirely absent; the bulk of the tumor contains mostly collagenous fibers. The blood- and lymphatic-vessels are filled up with mononuclear cells. The macroscopically unchanged skin, when examined microscopically, reveals changes in its deep vessels and around small vessels, which are quite alike to the changes in well-developed tumors. The lumen of the vessels contains numerous leucocytes, heaps of mononuclear and megalonuclear-cell elements.

A Case of Porokeratosis Localized in the Mouth and on the Glans Penis.

—V. MIBELLI (*Arch. f. Derm. and Syph.*, Vol. 47, pp. 1-17, 231-271, 1899).

The author gives a detailed clinical description of the disease, which he observed in a patient of 68 years of age. The disease was of more than 30 years duration. Scalp, trunk, upper and lower extremities were occupied by the disease. The interesting features of this case may be summed up as follows:

1. The long duration of the disease produced severe changes and facilitated the spreading of the disease over exceptional areas, giving rise to various manifestations of the clinical aspect of the disease, according to localizations.

2. The presence of the disease upon the mucous membrane of the mouth and upon the genital organs, seven patches upon the glans penis, and upon the prepuce as far as the sulcus. The patches were identical in their clinical aspect with the lesions upon the skin.

3. The disease occurred in different members of the family in four genera-

tions. The disease did not give rise to any subjective complaints, except to slight inconvenience during walking and when performing rough manual work, owing to the presence of lesions upon hands and feet. Until the cause of the disease is known, the author considers the name of porokeratosis as the most appropriate one.

The Cure of Chronic Eczema of Infants and Children with Arsenic.—

T. NEWBERGER (*Arch. f. Derm. and Syph.*, Vol. 47, p. 195, 1899).

The thirty cases of eczema in infants and children, the author used with satisfactory results arsenic internally (Fowler's solution, water aa. for children of two or more years of age, and Fowler's solution 1.50 and water 3.50 for older children). He began with one drop of this dilution in milk after meals for the first eight to fourteen days, increasing to six or seven drops in a period of three to four weeks. The dose was gradually diminished with the disappearance of the disease. In infants below two years of age the maximum dose used was 5 drops. The improvement usually takes place between the third or fifth week of treatment, the disease disappearing entirely in seven to eight weeks. The author saw no untoward effects from arsenic, such as arsenical pigmentation, arsenical keratosis, or eruptions.

Acanthosis Nigricans.—T. BURMEISTER (*Arch. of. Dermat. and Syph.*, Vol. 47, p. 343, 1899).

From a study of one case, under his own observation, and of eighteen cases, gathered in medical literature, the author endeavors to determine the average sex (40 per cent. man-60 per cent.) age (between 40-50) which is attacked by the disease, and the duration (prolonged), and the special localization of the affection.

He does not regard alcoholism, syphilis, or tuberculosis as an etiological factor in the production of the disease. He considers favorably the theory that in acanthosis nigricans the function of the abdominal portion of the sympathetic nervous system is altered by a carcinomatous process giving rise to the skin and mucous membrane changes. The autopsy performed in the case under the author's observation did not reveal any signs of a tumor or of a diffuse carcinomatosis. The nervous systems, central or sympathetic, could not be examined.

Histopathology of Some Nail Affections.—T. HELLER (*Dermatolog. Zeitsch.*, vol. v, p. 741, 1898).

Sections of gangrene of the nail owing to thrombosis of the femoral artery, showed marked swelling of the veins of the nail-bed, and a disappearance of the elastic fibers. In diabetic gangrene, an inflammation of the nerves characterized by a round-cell infiltration of the perineurium could be demonstrated in longitudinal as well as in transverse section. The axis cylinder of the nerves was entirely destroyed and the elastic fibers gone. Heller is of the opinion that the nerves are affected secondarily, owing to malnutrition produced by the primary changes in the blood-vessels.

In a case of onychogryphosis, due to an injury of the nerves and associated clinically with trophic changes, pathological examination did not disclose any alterations either in the peripheral nerves themselves or in their endings.

The author had an opportunity to examine by modern histological methods a

finger of an Egyptian mummy about 3000 years of age, and he found all the skin-layers perfectly preserved. The blood-vessels with some recognizable blood-corpuscles could be plainly demonstrated. The structure of the nail-bed and the nail-plate did not show any anomalies. The nuclei could not be stained, but all other tissues were characteristically colored by their specific stains, the elastic fibers being especially well demonstrated by orcein.

Sebaceous Glands in the Mucous Membrane of the Mouth.—D. W. MONTGOMERY. (*Proceedings of Assn. of Amer. Anatomists*, 10th Session, 1897.)

The author details two cases, closely resembling that described by Fordyce in this JOURNAL (Nov., 1890), under the title "A Peculiar Affection of the Lips and Buccal Mucous Membrane." The two cases were syphilitic, and showed the yellowish spots in these locations. Microscopically, there was found, not the granular condition of the lower-rete cells described by Fordyce, but true sebaceous structures, lobulated, and presenting all the histological features of these glands.

Examination for Lepra Bacilli in the Organs of a Child, Born of Leprous Parents.—O. R. VOIGHT (*Brutch*, XX., p. 485, 1890).

The child, born in a leper-asylum, died when five weeks old. The father of the child is twenty-eight years old, suffering with lepra from childhood, and having at time of the child's death macular anesthesia and atrophy of small muscles. The mother, thirty-five years old, suffered for the last eleven years with lepra, exhibiting at time of child's death leprous tubercles upon face and extremities.

Macroscopically the child did not present any changes. The post-mortem examination did not reveal any changes, except a slight increase of spleen and mesenteric glands. For microscopical examination the following tissues were taken: (1) Skin of the thenar, forearm, crus, lobe of the ear, and eyebrows, (2) spleen, (3) lymphatic inguinal and mesenteric glands, (4) liver, (5) kidneys, and (6) lungs. The tissues were put in paraffin; sections stained by Ziehl-Neelsen method. About one hundred sections were examined (Zeiss) and a negative result obtained. The skin did not exhibit any small-cell infiltration and the vessels were not changed.

GENITO-URINARY DISEASES.

Ultimate Results of a Resection of the Urethra.—DR. PAUL NOGUÉS (*Annales d. mal. d. org. génito-urin.*, p. 166, 1899).

The patient, when nine years old, had rupture of the urethra, followed rapidly by a cicatricial stricture of the perineal urethra. Between August, 1888, and 1891 an external urethrotomy and three internal urethrotomies had been performed, and were followed by very prompt recontraction. Dilatation was always very painful, and had to be performed every other day in order to maintain the caliber. The urine was cloudy, and there were frequent attacks of fever, and the left kidney was enlarged. In 1891 Professor Guyon performed a resection of

the cicatrix, which occupied the floor of the canal (the superior wall was intact), and sutured the wound by two planes of sutures without drainage; there was primary union, and until 1897 the canal was kept open to 44 *béniqué*, at which time the patient disappeared.

Fourteen months later the patient returned, and an exploration of the canal showed contraction to No. 12. But the ease of dilatation was in marked contrast to the difficulties experienced before the operation. The floor was irregular and the point of the guide caught, but after it was in place the *béniqué* followed without difficulty. The cicatrix of the wound was supple, and although there was evident tendency to recontraction, a little supervision only was necessary to keep the canal of good caliber.

On the Etiology of Bladder Tumors in Anilin Workers.—DR. HULDSCHNER (*Berl. Klin. Wochenschr.*, No. 45, 1898; *Centralbl. für die Krankh. d. Harn. und Sexual-Org.*, p. 104, 1899).

The author made experimental investigations into the effect of inhalation of anilin, nitrobenzol, and toluridin in rabbits; he believes that the hindrance to oxidation occasioned by inhalation of anilins causes oxaluria, and that habitual oxaluria by irritation of the tissues may lead to tumor-formation. Workers in anilin factories must, therefore, be protected against the inhalation of harmful vapors by proper measures.

Leichtenstern of Cologne reported two cases of bladder tumor at a scientific meeting at Dusseldorf. One patient recovered by giving up his trade, the other died after removal of tumor, which was a sarcoma. According to Liechtenstern, the bladder affections do not occur from the anilin manufacture, but from the reduction of the amido-bodics (toluidin and naphthylamin).

On Movable Kidney.—D. WALLACE, F.R.C.S.Ed. (*Scot. Med. and Surg. Journ.*, p. 193, 1899).

The author believes *post-mortem* statistics of mobility to be fallacious, as the kidney is more fixed after death than during life, and that no satisfactory explanation has been given either of the reason for the greater frequency of the occurrence on the right side as compared with the left nor of the causes which lead to kidney mobility. The theory that it is more common in women of the poorer classes, who have borne many children at short intervals, the observations of several authors have failed to substantiate, and in his own cases requiring treatment, fourteen in number, thirteen were females, and of these seven were nulliparous, and only one of the others had born several children and belonged to the poorer class.

The loss of fat, supposed to be a predisposing cause, he is more inclined to believe to be in reality the result, as it certainly is in the cases with gastrointestinal symptoms. The condition comes on gradually in the majority of cases and gets progressively worse, and the exact time of onset is rarely known, unless due to traumatism.

When palpating the lumbar region for the kidney we may fail to find it, because at the time of examination it may be low down in the iliac fossa—a source of error to be borne in mind.

Clinically, he groups the symptoms under four heads: (1) Simple mobility

without symptoms; (2) pain, described as a sensation of aching and dragging, on the affected side; (3) renal pain, which may be accompanied by hematuria, pyuria, or intermittent hydronephrosis, but not necessarily so; (4) the gastrointestinal disturbances accompanied by, or ending in, neurasthenia. The symptoms, however, are not always commensurate to the degree of mobility.

The affected kidney is usually healthy, and the symptoms, as a rule, wholly subside after fixation of the kidney.

He accepts Kendal Frank's explanation of symptoms: (1) Some symptoms are common to both kidneys, as the dragging pain, sense of weight, neuralgic pains, fatigue and debility; (2) some symptoms belong exclusively to mobility of the right kidney, the gastric crises, indigestion, flatulence, vomiting and pain, which come on about two hours after eating. The symptoms peculiar to the left kidney are not pointed out.

With regard to treatment, three classes are to be recognized: (1) Those in which no treatment is necessary, the condition being discovered by accident; (2) those relieved by the wearing of a pad; (3) those requiring operation—nephropexy. For a pad the author prefers an air-pad, fixed to the corset, and placed in position while the kidney is known to be in place.

Of eight cases operated upon by the author, three belonged to the extreme gastro-intestinal type, with marked emaciation. Of these one was unmarried and two were nulliparous.

His method of operation is to pass three deep sutures of strong catgut through the kidney substance; using MacEwan's herniotomy needle; and stitch the organ to the posterior abdominal wall as high up as possible. He freely separates and removes the perirenal fat, but does not scarify nor strip the capsule proper. In all he has obtained firm union.

Treatment of Ectopia Testis.—DR. BROCA (*Gaz. des. Hôpitaux*, p. 315. 1899).

The author reports 138 operations for this trouble, upon 115 subjects. Of these, 62 patients, upon whom 79 operations were done, were followed up from one to six years. He believes that the testis need never be removed. Out of 138 operations the testicles was removed only once, in a young child, with a strangulated hernia, as it was important to finish the operation as soon as possible. As to the objection that it is useless to lose time in trying to save a testicle when atrophied, as its development is already compromised, he has seen testes which were below par improve after operation, but he has also seen some which gave good promise become atrophied. And either result may occur whatever the situation of the gland, whether in the abdomen, in the canal, or at the ring.

Indications for operation are (1) frequent pain, (2) constancy of a hernial sac, this sac generally being testicular. Hernia with *ectopia* is generally refractory to a truss, and exposes the patient to grave accidents.

As to age, he operates in general earlier where there is a concomitant hernia, just as he operates earlier upon a hernia than he does on a pure *ectopia*. Apart from this he defers operation in the hope of a late descent, with consequent lengthening of the cord and a better final situation for the testis.

Of the 79 cases, 3 had superficial suppuration, all the others gave immediate union. In 31 the result was perfect. In 13 there was secondary atrophy, but these patients were benefited by the operation, as they had no pain and did not

need a truss. In the remaining 35 the testes all remained outside the ring, but higher in the scrotum or against the pubes, but were neither accompanied by pain nor hernia.

The operative procedure was ablation of the peritoneo-vaginal canal, complete section of the cremaster and the fibrous bands, breaking through the fibrous septum at the root of the scrotum, and the creation, with the finger, of a cavity for the reception of the testis. The canal is then carefully and closely sutured. He never sutures the testis in place, believing it to be useless and perhaps harmful. If the cord retracts the scrotum becomes invaginated.

The Question of Inflating the Bladder with Air Preliminary to the Bottini Operation.—BRANFORD LEWIS, M.D. (*Med. Record*, p. 425, 1899).

The author strongly advocates the distention of the bladder with air, instead of the boric solution advised by Freudenberg, on the ground that with cocaine anesthesia the operation is practically painless when air is used, and many have spoken of the pain caused when the boric solution is used. Dr. W. Meyer opposes this, as dangerous, on the ground of the danger of death from air embolus passing from the renal vein, which it can reach through ureter and kidney substance, as proven by the experiment on a dog by Lewin and Goldschmidt (*Deutsche Medic. Woch.*, Nos. 38 and 52, 1897).

The author answers these objections by citing the numerous operations on women by the Kelly method of bladder examination, and the operations by those who follow Bristow and advocate the use of air in bladder distention for ordinary bladder operations; also the experiment of Hare, who injected 20 cubic centimeters of air into the left jugular vein of a dog weighing 45 pounds, without any ill effect.

Further, the author carried on a series of experiments on a dog, as follows: Chloroform, abdominal cavity opened, bladder distended with air and penis ligated. No amount of compression or manipulation, even to rupturing the bladder, succeeded in forcing air into the ureters. Then, with hypodermic needle, then with cannula, air was forced into ureter to greatest distention, and maintained. Still there was no passage of air through the kidney to renal vein, and animal slept on. Then air was injected with hypodermic into mesenteric vein, and could be seen to pass up the vein. No result.

These experiments, together with letters from surgeons who have had experience with bladder distention with air, who have never noted ill results, the author believes he has completely answered Dr. Meyer's objections, and maintains that bladder distention with air is the logical method to operate with the Bottini instrument.

Cure of Very Grave Accidents in Two Prostatitis by Catheterization.—J. JANET (*Ann. d. Mal. d. org. Genito-Urin.*, p. 160, 1899.).

The author reports two very interesting cases, from the point of view of the choice of surgical intervention.

Both cases were grave. One had urinary intoxication with high fever, the other severe bladder hemorrhage; in both, especially in the latter case, cystotomy was

proposed, and decided upon, as urgent; nevertheless, simple catheterizations properly applied sufficed to relieve the gravity of the situation.

The first patient, 81 years old, had used the catheter for ten years, without any precautionary procedures. His urine had been infected for a long time. There was a residual of 200 grams of urine after spontaneous urination. At night the patient used the catheter two or three times. The urine was very purulent, a colon-bacillus infection, with evidence of pyonephrosis.

He had thirst, dry tongue, anorexia, in-omnia, itching of the skin, and gradual onset of fever, mounting to 39.2° C., with marked oscillations, and rapid loss of flesh. Under the catheter, *à demeure*, which was changed every third day, there was gradual improvement, but a purulent urethritis set in, followed by a discharge of pus, apparently due to prostatic abscess. After this occurrence improvement again set in, and by lavage and internal catheterization all symptoms cleared, though the urine remained purulent; but the patient was able to resume his former life.

The second patient, 76 years old, had suffered for several years from prostatic enlargement. When first seen he had a purulent residual urine and a very large prostate. Daily catheterization and lavage was advised, under which he did well for several months. Then he began to have severe vesical pain and frequent urination and a sense of weight. One day a large quantity of blood followed catheterization, which, in spite of treatment, recurred with severity each day, and a tumor was suspected. Cystoscopy was impossible, and the patient entered the hospital for operation. Pending the operation regular catheterization was instituted every two hours, and the urine withdrawn was replaced each time by an equal amount of boric solution. Under this régime the hemorrhage ceased, and the same procedure was continued for one week. The hemorrhages did not return, the bladder cramps disappeared, and the patient improved. Complete catheterization was then performed, and the intervals lengthened, and light lavage of silver nitrate made. The urine became clearer. In three weeks the catheterizations were made morning, night, and in the middle of the night; then only twice a day, and the patient began to urinate spontaneously. He was then allowed to return home, and to again catheterize himself.

According to Janet, catheterization is the operation of choice in the retention of prostatics, even in the grave accidents which complicate it.

Society Transactions.

NEW YORK ACADEMY OF MEDICINE

SECTION ON GENITO-URINARY SURGERY.

Tuesday Evening, April 11, 1899.

G. K. SWINEBURNE M.D., *Chairman.*

ORDER.

PRESENTATION OF PATIENTS, NEW INSTRUMENTS, AND SPECIMENS.

1. **Case of Nephro-ureterectomy for Tuberculosis.**
2. **Case of Nephrotomy for Calculus Occlusion of the Ureter, Followed by Nephrectomy for Hemorrhage.**
3. **Case of Urethral and Genital Tuberculosis.**
4. **Case of Vesical Tuberculosis Improved by Treatment.**

DR. F. TILDEN BROWN.

1. **Case of Nephro-ureterectomy for Tuberculosis.**

DR. BROWN said he was unable to show the case of nephro-ureterectomy for tuberculosis because she had left the hospital two days before to go to her home in the country. The notes of the case are as follows:

CASE I.—*Nephro-ureterectomy for Tuberculosis.*—Mrs. A. W., age 34; married 8 years. Never pregnant.

Family History. Father accidentally killed. Mother died of phthisis at 34 years. One brother and one sister died in childhood. Two brothers and one sister are in good health.

Personal History.—Measles at 12. Mumps at 18. From 16 to 23 had attacks of palpitation and dyspnea ascribed to indigestion. At about 11 and again 3 years ago had attacks of grip. No sequelæ.

Pre-sent Illness.—First symptom about two years ago. Frequent micturition, frequency became gradually more marked and painful. At times pain between the shoulders. For year past *thamuria* has sometimes reached such short intervals as every fifteen minutes day and night. But as a rule micturitions occur hourly. In the spring of 1898 a week or two apart, patient had chilly sensations and fever. During autumn of the same year she experienced the same symptoms and had one shake. At this time the blood was examined by Dr. E. E. Smith and malarial parasites found. Patient improved under quinine.

Shortly after examining the blood Dr. Smith found tubercle bacilli in the urine, and then referred the patient to Dr. Brown for examination and treatment. At this time the patient was passing a turbid acid urine every half hour, and suffering a good deal of vesical distress.

Preliminary cocaineization of urethra and bladder with 4 c.c. of a four-per-cent. solution permitted irrigation of the bladder, which could hold but two ounces of fluid, further use of cocaine solution enabled the bladder to tolerate nearly three ounces of three-per-cent. boric-acid solution. With Brenner's ureter-cystoscope the right ureter is seen in the center of an edematous and congested area. A

number 7 Albarran catheter is passed an inch within the ureter, when urine resembling milk tinged water issued in very rapid drops. Seventeen c. c. of this was collected in three minutes. The catheter was now withdrawn and the bladder emptied through the cystoscope: again cocainized and distended with nearly three ounces of fluid, a fresh catheter was passed into the left ureter, urine of a normal color issued slowly—six c. c. was collected in twenty-five minutes.

Dr. Sondern's analyses of the three urines are as follows:

Name: Mrs. A. W.

Date of Examination: Nov. 24-25, 1898.

BLADDER SPECIMEN—URINARY ANALYSIS.

Amount passed: 25 c. c.	Specimen of: November 24, 1898.
Reaction: Acid.	Color: Amber.
Deposit: Moderately marked.	Odor: Not offensive.
Character of Deposit: Heavy.	Specific Gravity: 1013 at 15° C. West-
Albumin: Ferrocyanide Test: Not	phal's Bal.
made.	Sugar: Fehling's Test: Negative.
Heller's Test: Present.	Fermentation Test: Not made.
Amount Esbach's Test:	Phenylhydrazin Test: Negative.
0.25 % ₁₀₀ by weight.	Acetone: Not made.
Bile: Negative.	Chlorids: approx. 0.005 in 1 c. c.
Urea: In 1 c. c. 0.012 gram.	Phosphates: No excess.
Indican: Not made.	
Additional Tests: None.	

MICROSCOPIC EXAMINATION.

Sediment obtained by Centrifuge 3 minutes at 2500 revolutions.

Blood: Small amount.
 Pus: Considerable, also tubular plugs of the same.
 Mucus: Moderate amount.
 Casts: Some epithelial and few granular casts.
 Bacteria: Numerous characteristic groups of tubercle bacilli.
 Epithelium: Many bladder-cells and groups presumably of renal pelvis.
 Cryst. and Amorph. Deposit: None.
 Other Structures: None.

URINARY ANALYSIS OF SPECIMEN SEPARATELY COLLECTED FROM LEFT KIDNEY BY METHOD OF URETER CATHETER.

Amount in 25 minutes: 6 c. c.	Specimen of: Same.
Reaction: Acid.	Color: Amber.
Deposit: Moderate.	Odor: Not offensive.
Character of Deposit: Heavy.	Specific Gravity: 1024 at 15° C. per
Albumin: Ferrocyanid Test: Faint	Wesphal's Balance.
Trace.	Sugar: Fehling's Test: Negative.
Amount Esbach's Method:	
Trace % ₁₀₀ by weight.	
Urea: 0.023 gram. in 1 c. c.	

MICROSCOPIC EXAMINATION

Sediment obtained by Centrifuge 3 minutes at 2500 revolutions.

Blood: Small amount

Pus: None.

Mucus: None.

Casts: None.

Bacteria: No tubercle bacilli.

Cryst. and Amorph. Deposit: Some uric acid and urates.

Other Structures: Few round epithelial cells, probably from ureter.

(Chemical Quantities only approximate, owing to small quantities available.)

URINARY ANALYSIS OF SPECIMEN SEPARATELY COLLECTED FROM RIGHT KIDNEY BY
METHOD OF URETER CATHETER.

Amount in 3 minutes: 17 c. c.

Reaction: Faintly alkaline.

Deposit: Considerable.

Character of Deposit: Heavy.

Albumin: Ferrocyanide Test: Present.

Amount Esbach's Method

$\frac{1}{2}\%$ by weight.

Urea: 0.001 gram. in 1 c. c.

Bile: Negative.

Specimen of: Same

Color: Almost none.

Odor: Not offensive.

Specific Gravity: 1003 at 15° C. per

Wesphal's Balance.

Sugar: Fehling's Test: Negative.

Chlorids: Much less than 0.005 in
1 c. c.

MICROSCOPIC EXAMINATION.

Sediment obtained by Centrifuge 3 minutes at 2500 revolutions.

Blood: Small amount.

Pus: Considerable, and tubular plugs of same.

Mucus: Small amount.

Casts: Some few granular casts.

Bacteria: Many characteristic groups of tubercle bacilli.

Cryst. and Amorph. Deposit: None.

Other Structures: Numerous groups of epithelium, presumably from the renal pelvis.

(Chemical Quantities only approximate, owing to small quantities available.)

REMARKS.

The Specimen from the Left Kidney.—The faint trace of albumin present is, I believe, accounted for by the small amount of blood; the latter together with the epithelium are most probably the result of the use of the catheter.

The above, with the general character of the specimen chemically as compared with the other specimens, and the absence of tubercle bacilli and pathogenic renal elements would, I believe, allow the conclusion that this kidney is normal.

The Specimen from the Right Kidney.—A much lower gravity and relative

excretion of urea, etc., the presence of albumin as stated, also few granular casts, pus and plugs of the same, groups of epithelial cells, presumably of the renal pelvis, and numerous characteristic groups of tubercle bacilli, would, I believe, indicate a tubercular pyelonephritis.

The Specimen from the Bladder.—This in general, and including the presence of tubercle bacilli, shows the same picture as the specimen from the right kidney; in addition there are but moderate evidences of a vesical catarrh.

In General.—If it could be assumed that at the time of catheterization of the ureters, the kidneys excreted urine of the same gravity and chemical character as they did when the "bladder specimen" was excreted, the following would be justified:

A mixture of *equal parts* of the urines as drawn from the ureters would be equal to the bladder specimen in gravity and amount of urea.

If so, the relative excretion of urea in a given time, taken as indicating excretory ability, would be: left, 23; right, 1; in other words, excretory work done: right kidney $4 \div$ per cent.; left kidney, $95 \div$ per cent.

Conclusions.—Left kidney: Normal.

Right kidney: Tubercular pyelonephritis.

Bladder: Some vesical catarrh.

Respectfully submitted,

FREDERIC E. SONDERN.

The patient was sent to the Presbyterian Hospital where after five days of rest and clinical observation she was operated upon, December 7, 1898. Ether. Oblique lumbar incision curving forward. Gland separated from its fatty capsule. Components of the pedicle isolated. Artery and vein ligated separately with chromic gut, these were severed and the kidney turned out of the wound with the ureter attached. The ureter, although soft and pliable, was five times its normal size and still larger near the sacral brim, where the duct was ligated, cut, and cauterized.

The ureter was closely studded with small unbroken tubercles throughout the seven inches removed. Much, if not all, of that remaining was undoubtedly similarly affected. The kidney had fairly large necrotic foci in four of its pyramids, besides a number of small cortical lesions. The necessarily large wound was closed with a series of chromic-gut sutures for the muscular layers. Drainage by two folded strips of gutta-percha tissue. First dressing on the seventh day—the drains removed—superficially the wound had united without redness—a few drops of faulty material followed drain when removed. Provision to meet this deep infection was made by freer drainage. Extensive spread of the supuration could not be checked and at different subsequent dressings all of the lines of suture had to be opened up for the cleansing of muscular and deeper pockets. By this misfortune convalescence was greatly retarded, still an excellent recovery and firm cicatrix ensued. Repeated examinations of the urine after the operation failed to discover tubercle bacilli. The ultimate behavior of the numerous miliary tubercles in the lower part of the ureter is a matter of interest.

CASE II.—E. P., an unmarried woman, 34 years of age, entered Trinity Hospital, February 20, 1899. The family history was negative. Personally, she had had good health until eighteen months ago when, while in church, she was seized with severe pain in the right side below the costal margin, nausea ensued, but no vomiting. In a few hours the pain had gone and she was apparently well for five months. Then, while in bed, she experienced a second paroxysm more

severe and continuous than the first. Vomiting lasted six hours; hot applications relieved the pain in part. Two months later she had a third attack, coming on at night also. On January 1st, the patient had a chill, followed that night by a severe right-side pain. This time her distress lasted two days and a half. Her physician treated her for biliary colic and shortly after sent her to the hospital with a diagnosis of gall-bladder empyema.

Physical examination showed a tumor on the right side between the costal and pelvic margins moving with respiration. The tumor was tense, slightly undulating and moderately tender. The history and examination led to a strong suspicion of the right kidney. Having the Harris urine segregator at hand, this was employed for forty minutes with the result that twenty cubic centimeters of normal-looking urine was collected from the left side and practically nothing from the right, although five or six drops issued from the right-hand tube. The next day on catheterizing both ureters by Brenner's cystoscope the speaker said he got the same result and in addition found at four inches an obstacle in the right ureter preventing further advance of the ureter catheter.

Dr. Sondern's following analysis showed the left-kidney urine to be normal.

Name: E. P.

Date of Examination: February 20-22, 1899.

BLADDER SPECIMEN PASSED BEFORE THE USE OF HARRIS' SEGREGATOR—URINARY ANALYSIS.

Amount passed in 24 hours: Not stated.	Specimen of February 19, 1899.
Reaction: Acid.	Color: Pale amber.
Deposit: Very moderate.	Odor: Not offensive.
Character of Deposit: Heavy.	Specific Gravity: 1020 at 15° C. Westphal's Bal.
Albumin: Ferrocyanide Test: Faint Trace.	Sugar: Fehling's Test: Negative.
Heller's Test: Faint trace.	Fermentation Test: Not made.
Amount: Esbach's Test: Faint Trace % ₁₀₀ by weight.	Phenylhydrazin Test: Not made.
Bile: Negative.	Acetone: Negative.
Urea: In 1 c. c. 0.022 gram.	Chlorids: approx. 0.01 in 1 c. c.
Indian: No excess.	Phosphates: No excess.
Additional Tests: None.	

MICROSCOPIC EXAMINATION.

Sediment obtained by Centrifuge 3 minutes at 2500 revolutions.

Blood: None.
 Pus: Small amount.
 Mucus: Small amount.
 Casts: Very few hyaline casts.
 Bacteria: No pathogenic varieties found.
 Epithelium: Numerous superficial bladder-cells.
 Cryst. and Amorph. Deposit: Few crystals of oxalate of lime.
 Other Structures: None.

URINARY ANALYSIS OF SPECIMEN SEPARATELY COLLECTED FROM LEFT KIDNEY BY METHOD OF HARRIS' SEGREGATOR.

Amount in 45 minutes: 25 c. c.	Specimen of: Same.
Reaction: Acid.	Color: Amber.
Deposit: Very moderate.	Odor: Not offensive.
Character of Deposit: Heavy.	Specific Gravity: 1020 at 15° C. per
Albumin: Ferrocyanide Test: Trace.	Westphal's Balance.
Amount Esbach's Method	Sugar: Fehling's Test: Negative.
Trace $\frac{\%}{100}$ by weight.	Chlorids: approx. 0.01 in 1 c. c.
Urea: 0.022 gram. in 1 c. c.	
Bile: Negative.	

MICROSCOPIC EXAMINATION.

Sediment obtained by Centrifuge 3 minutes at 2500 revolutions.

- Blood: Very small amount.
- Pus: Very few cells.
- Mucus: Small amount.
- Casts: Some few hyaline casts.
- Bacteria: No pathogenic varieties found.
- Cryst. and Amorph. Deposit: Few crystals of oxalate of lime.
- Other Structures: Some superficial bladder-cells.
- (Chemical Quantities only approximate, owing to small quantities available.)

BLADDER SPECIMEN BEFORE USING URETER-CATHETER—URINARY ANALYSIS.

Amount passed in 24 hours: Not stated.	Specimen of: February 21, 1899.
Reaction: Acid.	Color: Amber.
Deposit: Slight.	Odor: Not offensive.
Character of Deposit: Heavy.	Specific Gravity: 1022 at 15° C. Westphal's Bal.
Albumin: Ferrocyanide Test: Trace.	Sugar: Fehling's Test: Negative.
Heller's Test: Trace.	Fermentation Test: Not made.
Amount Esbach's Test:	Phenylhydrazin Test: Not made.
Trace $\frac{\%}{100}$ by weight.	Acetone: Not made.
Bile: Negative.	Chlorids: approx. 0.01 in 1 c. c.
Urea: In 1 c. c. 0.023 gram.	Phosphates: No excess.
Indican: No excess.	
Additional Tests: None.	

MICROSCOPIC EXAMINATION.

Sediment obtained by Centrifuge 3 minutes at 2500 revolutions.

- Blood: None.
- Pus: Small amount.

Mucus: Moderate amount.
 Casts: Few hyaline casts.
 Bacteria: No pathogenic varieties found.
 Epithelium: Some superficial bladder-cells.
 Cryst. and Amorph. Deposit: None.
 Other Structures: None.

URINARY ANALYSIS OF SPECIMEN SEPARATELY COLLECTED FROM LEFT KIDNEY BY
 METHOD OF URETER CATHETER.

Amount in ? minutes: 7 c. c.	Specimen of: Same.
Reaction: Acid.	Color: Amber.
Deposit: Slight.	Odor: Not offensive.
Character of Deposit: Flocculent.	Specific Gravity: 1020 at 15° C. per
Albumin: Ferrocyanide Test: Faint	Westphal's Balance.
Trace.	Sugar: Fehling's Test: Negative.
Amount Eshach's Method:	Chlorids: Relatively normal.
Faint trace $\frac{1}{100}$ by weight.	
Urea: 0.022 gram. in 1 c. c.	
Bile: Negative.	

MICROSCOPIC EXAMINATION.

Sediment obtained by Centrifuge 3 minutes at 2500 revolutions.

Blood: Small amount.
 Pus: Very few cells only.
 Mucus: Very small amount.
 Casts: Very few hyaline casts only.
 Bacteria: No pathogenic varieties found.
 Cryst. and Amorph. Deposit: None.
 Other Structures: Few round epithelial cells, probably from ureter.
 (Chemical Quantities only approximate, owing to small quantities available.)

Fluid Passed by the "Right" Harris Tube.—On microscopic examination this is found to consist of some blood-corpuscles, few pus-cells, and numerous bladder epithelial cells. Staining shows no pathogenic organisms.

Remarks.—The specimens obtained from the left kidney would, I believe, indicate some hyperemia of the renal parenchyma only, there being no evidences of a lesion of the renal pelvis.

The bladder specimens show, I believe, evidence of some cystitis. A careful search through all the specimens failed to reveal evidences of an etiological factor.

Respectfully submitted,

FREDERIC E. SONDERN.

The diagnosis of right hydronephrosis and impacted calculus four inches from the vesical opening was made.

Operation. Ether. Small median incision. Finger passed within the peritoneum felt a small pea-sized figure-of-eight-shaped calculus just below the first sacral vertebra. The ureter above was greatly dilated but compressible. The patient was turned upon the left side and right lumbar nephrotomy done. A quart of thin, purulent fluid evacuated and saved.

Name: E. P.

Date of Examination: February 24-
25, 1899.SPECIMEN FROM THE RIGHT KIDNEY BY LUMBAR INCISION AND PUNCTURE OF KIDNEY
—URINARY ANALYSIS.

Amount passed in 24 hours: 200 c. c.	Specimen of: February 24, 1899.
Reaction: Faintly alkaline.	Color: Dull amber.
Deposit: Marked.	Odor: Ethereal.
Character of Deposit: Heavy.	Specific Gravity: 1005 at 15° C. West-
Albumin: Ferrocyanide Test: Present.	phal's Bal.
Heller's Test: Present.	Sugar: Fehling's Test: Negative.
Amount Esbach's Test: 0.5% ₁₀₀ by weight.	
Bile: Negative.	Fermentation Test: Not made.
Urea: In 1 c. c. 0.002 gram. in 24 hours.	Phenylhydrazin Test: Not made.
Indican: Negative.	Acetone: Negative.
Additional Tests: None.	Chlorids: Traces.
	Phosphates: No excess.

MICROSCOPIC EXAMINATION.

Sediment obtained by Centrifuge 3 minutes at 2500 revolutions.

Blood: Very small amount.

Pus: Large amount of necrotic pus, forming bulk of deposit.

Mucus: Small amount.

Casts: Some hyaline casts.

Bacteria: No tubercle bacilli found.

Epithelium: Many groups of macerated pelvic cells.

Cryst. and Amorph. Deposit: Small amount of triple phosphate crystals.

Other Structures: None.

REMARKS.

The presence of the albumin being practically accounted for by the pus, etc., present, with some hyaline casts, and the fact that this specimen has been pent up owing to a blocking of the ureter, would not allow much, if any, conclusion as to the condition of the renal parenchyma.

The large amount of necrotic pus, with the low gravity, and very low relative amount of urea, etc., impresses one as a specimen from a pyonephrosis than from a pyelonephritis.

Respectfully submitted,

FREDERIC E. SONDERN.

Some small, rough, dark calculi were found in the dilated sacs of the kidney. With clean gloves on, two fingers were passed through the abdominal wound to the calculus and efforts made to dislodge and work it up the dilated ureter to the kidney for removal. This was found impossible with all the compression force he dared employ. The abdominal wound was closed; the kidney was drained by a large catheter and gauze. The twenty-four-hour secretion of this kidney was but two and a half ounces. Two days later continuous free oozing of

blood stained the frequently changed lumbar dressings. The source of the bleeding was in doubt. Did it come from the kidney or from the ureter about the lodged calculus? The urine passed from the bladder had been free from blood. After twenty-four hours of intermittent bleeding the patient's pulse had risen to one hundred and twenty, and she was approaching that dangerous condition when operation, if longer delayed, might be fatal. Inspection of the kidney when being denuded with astringent solutions showed only fresh blood appearing in the pelvis of the organ, its origin could not be determined. The patient was prepared for immediate nephrectomy. On catheterization, before going to the operating-room, five ounces of bloody urine were drawn. This fact lent support to the possible ureter origin of the bleeding. Still it might mean that the calculus had passed to the bladder and the blood was now descending from the kidney, or the just accomplished catheterization might have induced vesical or urethral hemorrhage. Doubt as to its source and the belief that the pyonephrotic kidney would be an ultimate source of recurring annoyance determined the speaker to do nephrectomy rather than ureterectomy. The kidney, on removal, showed a slight abrasion in the pelvis, which he hoped had been the source of bleeding. This, however, was dissipated by the continuance of the blood-stained urine for a couple of days, but in diminishing amount. The nephrectomy following as it did a nephrotomy on a pus-kidney necessitated a soiled wound, which could only be partially closed; but as rapidly as the conditions would permit, successive suturings were resorted to, and at this time the cicatrix looks much as if it had all enjoyed the same period of repair. Whether the still impacted calculus will occasion a ureteritis and require removal is a matter of future interest.

The features of the case were:

1. The diagnosis by ureter catheterization of right-side anuria and the determination of the exact location of the ureteral obstruction by the catheter measurement.
2. That free and dangerous bleeding can attend the unsuccessful effort to dislodge an ureteral calculus.
3. That a pyonephrosis was mistaken for a hydronephrosis and the query whether a blood examination would have given sufficient evidence of leucocytosis to have averted this minor error.

TWO CASES OF VESICAL TUBERCULOSIS.

DR. BROWN said he would like very much to have suggestions as to the treatment of these cases, one of them in particular. The patient before them was a man of 35, who was never conscious of vesical trouble until four months ago. Then he was annoyed with *thamuria*, finding he had to urinate every half-hour or oftener, and during micturition there was pain over the suprapubic region and in the urethra. Between these periods he was comparatively comfortable. His condition at night was exactly the same as by day, getting up every half-hour to pass water. Two years ago the right testicle enlarged and was opened by his physician. Some matter was evacuated. There was nothing suggestive in the patient's family history nor in his own previous to the tuberculous epididymitis. He had five brothers and five sisters who were well and healthy and his four children were all healthy. The patient thought he had not lost any weight in the past four months. The patient had been brought to him by Dr. Purdy of New York, for ureter catheterization, but without attempting more than urethroscopy, the speaker found at once that it was one of those cases where the effort to

gather separate urines was apt to be attended with very slight success, if attempted at once and with only cocain anesthesia: he was in great doubt as to whether the urethra and bladder could be improved sufficiently by a course of training and treatment to permit of the use of a cystoscope, much less a ureter cystoscope, and even the use of the Harris instrument would in this case have been impossible without general anesthesia, and even then the tuberculous state of the urethra and bladder with the Harris instrument he was sure would so complicate the result with what was shown by the urethra and the bladder that the deductions, if ascribed to the ureters, would in all probability be faulty ones. He saw at once that this patient could not be examined in the way Dr. Purdy wished and that they must go about it in another way. The urine examination on his first visit showed tubercle bacilli. It was quite evident from a clinical standpoint that they would have to make up a diagnosis.

One interesting feature of this case was that he had about as much urethral discomfort during the intervals as on urination. The speaker thought the use of the urethroscope was proper and found by passing a 24 Klotz 6-inch tube through the posterior urethra, that around the caput gallinaginis there were three small ulcers which were unquestionably tuberculous. Other isolated lesions existed as far forward as the bulb. These were touched with ten-per-cent nitrate-of-silver solution.

The patient reported a remarkable relief from his discomfort in urination and some considerable increase—about twenty minutes—in the length of time he could hold his urine both day and night. The speaker said he had hoped that such treatment carried on gradually, and perhaps ultimately, to the presumable lesions in the bladder might improve the conditions sufficiently to permit of ureter catheterization; but this improvement, although it lasted for about two weeks, was upset by the use of a weak nitrate-of-silver solution thrown into the bladder. At his next visit the patient said his condition had been aggravated by that treatment. He still has pain, but is free from the discomfort in urination; in other words, the pain in the urethra was wholly dispelled by applications of a strong solution of nitrate of silver to the lesions; but he is in just such a condition that any suggestions as to the future treatment of the case would be most acceptable. The patient is anxious to have something done in the way of an operation. The speaker said he did not feel justified in advocating a bladder operation because both testes were diseased and one seminal vesicle was extremely tender and nodular. Still he did not see anything to be done except suprapubic drainage and at the same time catheterizing the ureters to ascertain the renal condition, the lesions in the bladder being treated with silver nitrate. It seemed to the speaker that if the man's discomfort returned, the operation was indicated and to learn all one could about the kidneys at that time by putting a catheter into each ureter.

In contrast with this patient the speaker said he would like to show a man of about the same age who had had tuberculosis of the bladder for the last four or five months and where the improvement had been quite satisfactory with no other treatment than improved hygiene of a hospital and the escape from tenebrous life of the Italian order. Local treatment had also been employed, *viz.*: bladder irrigations of boric-acid solution. This patient remembered nothing of his childhood and denied any venereal disease. Seventeen years ago he was sick for some time with a severe attack of bronchitis and four years ago he suffered from another attack, but less severe than the previous one. During the last few years he occasionally had rheumatic pains in various parts of his body. His present illness dated from December 10, 1898. The character of the pain seems

to have been dull. He urinated as frequently as every 5 or 10 minutes. The pain over the symphysis was increased on micturition, when it became sharp and seemed to move low down in the pelvis. The pain has increased during the last month. Three weeks ago the patient stopped work because of pain. He has never had any lumbar pain. Never had any attack of renal colic; never passed any gravel. During the last few months has had a slight cough with but little expectoration. He feels considerably weaker than a month ago.

This is a part of the history taken at the Presbyterian Hospital. He was there as a patient up to early in February. Tubercle bacilli were at once found in the urine and treated by irrigation of the bladder with boric-acid solutions. There was a marked gain in response to this treatment and the speaker fancied as much was due to the improved hygienic surroundings and food as to anything else. When he was referred to the speaker for examination early in February, he catheterized the man's ureters and submitted that urine and the urine from the bladder taken just before catheterization to Dr. Sondern, who found a number of tubercle bacilli in the bladder urine but none in the urine from the right or left kidneys. There were two ulcerative lesions to be seen in the bladder near the right ureter. The urine from the right kidney was very faulty, showing a decided pyelonephritis, although tubercle bacilli were not found in it. Ten days later the speaker used the Harris segregator in this case with satisfactory results. The only hitch was, it caused the man a good deal of pain on turning the horns upward to withdraw the instrument; but the details of the analyses were the same as the analyses when the ureters were catheterized except turbidity, and the gross appearance of the specimens were notably greater. Two weeks later he sought again by ureter catheterization to find tubercle bacilli in the urine coming from the right kidney. He felt that the man probably had right renal tuberculosis, but that the bacilli were scarce and not enough urine had been collected. He catheterized the ureters once more, but again the report came back: "No tubercle bacilli found in these urines." This report also failed to show tubercle bacilli in the urine coming from the bladder. Two subsequent last reports failed also to show bacilli in the bladder urine, and the patient now can hold his urine, on an average, two hours day and night, whereas formerly urination was every half-hour, and sometimes every five or ten minutes. The speaker thought it would be interesting to present these two cases, as they illustrated the recognized fact that some of the cases seemed to be beyond our ability to treat at all helpfully, and others again where things looked just as unfavorable, responded fairly well to treatment and its result was beyond our expectation.

DR. CHARLES H. CHETWOOD presented a small portable rheostat which he had used with satisfaction. It was not his own invention, but a device which had been brought to his notice and had proved very satisfactory. The portable rheostat was constructed so as to be screwed in any electric-lamp socket and the voltage could be moderated or increased by raising or lowering a little button on the side. It could be used for any electric-lighting purpose, such as urethroscopy or the cystoscopy.

DISCUSSION ON DR. BROWN'S CASES.

DR. L. BOLTON BANGS said he felt a good deal of interest in the cases that had been presented by Dr. Brown and did not know that he could add much interest to the occasion by what he was able to say at the moment.

To consider the tubercular cases first, after having been through a good deal

of zealous surgery in the treatment of local tuberculosis of the genito-urinary tract he had become very conservative. There were some cases, as Dr. Brown suggested, which, apparently hopeless at first, did get better in a measure and were partially, if not completely, cured. By an amelioration of their symptoms they became tolerably comfortable. It would seem to him that environment had something to do with it. Hospital cases were very unsatisfactory ones to him, because of the unfortunate circumstances in which the people were placed after leaving the hospital. If they could be removed from the unhygienic surroundings in which they lived, sent to a change of climate, provided the disease was not too far advanced, he had seen some very satisfactory results take place. Take, for example, laboring men or mechanics. At one time he had what he humorously termed a small colony of mechanics in Southern California—plucky men who had enough health left to work their way down there. He had reports from them periodically. Some of them, so far as his knowledge went, were still living.

One of them, a compositor in a newspaper office, having got so well that he urinated only once in two hours, returned to New York, and the last the speaker knew was here in a newspaper office. His case was a surprise to the speaker. He drained him by the perineum; then he opened his bladder suprapubically, curetted him, and drained him, and finally induced him to go to Southern California, as others had done, and there he got tolerably well.

In the first case Dr. Brown spoke of, in spite of the fact that the man has nodules in his testicles, seminal vesicles, and prostate, if a definite ulcer could be found in the bladder by means of the cystoscope—and in order to ascertain this it might be advisable to give him a general anesthetic, a strong solution of nitrate of silver applied directly to it would have a decided alterative effect. There was a probability of moderating and of holding in abeyance the conditions in this man by improving his hygiene. The fact that Dr. Brown was unable to relieve the patient by injecting into the bladder a *weak* solution of nitrate of silver was a striking one. The speaker had had his attention called to this fact in conversation with Dr. Keyes, confirmatory of some of the speaker's own results. He had noticed that if he could not find the tubercle bacilli in a suspected case, a weak solution of nitrate of silver injected into the bladder exaggerated the symptoms, making the patient temporarily worse, which was to him (and he found that this was so in Dr. Keyes' experience) a confirmation of a diagnosis of tuberculosis of the bladder. Hence the speaker was accustomed to give directions to his House Surgeon to test doubtful cases by giving an injection of a weak solution of nitrate of silver. If a patient was made worse, then the speaker said "watch very carefully and search the urine for tubercle bacilli."

In regard to the kidney case, the speaker said he had had one experience that had been very instructive to him as regards renal drainage. He operated upon the case eight years ago. It was one of hydronephrosis, presumably due to ureteral obstruction, due to stone. The tumor was large and very tense, and on making an incision into the sac of the kidney and plunging his finger in, he felt an unmistakable stone; but there was a tremendous gush of fluid by the side of his finger, and he was never able to confirm the diagnosis by finding the stone. In view of the fact that in the other kidney there was chronic diffused nephritis no nephrectomy was done; drainage was instituted and has been continued till now. That man was at the present day a conductor on a railroad-car in Brooklyn. The nephritis had slowly advanced in the other kidney. He had had two attacks of acute nephritis, and was still draining. He would not be without his drainage-tube, and every day he was at his work. He was fully aware of the

danger. He was an intelligent Scotchman, and the speaker had told him that an attempt to take out the kidney and close the sinus might jeopardize him. On one of his visits to the speaker, in searching the kidney by means of a long probe he distinctly felt what he took to be a calculus, and he subsequently brought it to the speaker, having passed it through the sinus. The speaker did not know of what it was composed. It was a little flat disc, with fine prolongations on each side. Whether this was a secondary stone which had formed in the kidney, or whether it was really the primary which escaped him at the time of the operation, the speaker did not know. He had injected his kidney with solution of methyl blue and found that the ureter was now patent and urine would find its way into the bladder.

The speaker said he would like to ask Dr. Brown whether he had had any satisfaction with X-rays in regard to the detection of renal calculus. The speaker had tried them several times, with very unsatisfactory results.

DR. EUGENE FULLER said he wished to thank Dr. Brown for his interesting reports. They were very thorough and well worked up. The tubercular cases were certainly very interesting. It was always a question about interference and non-interference in those cases. There was one criticism, possibly, he might make in a case of that nature. Where we find a man comfortable with tubercle bacilli in his urine he thought it was often a mistake to investigate too minutely to find out just where the bacilli came from—whether from one or the other kidney or from the prostatic urethra; but better to leave him alone, on account of the danger of stirring up trouble by making a too positive differential diagnosis, and to put him on hygienic, antitubercular treatment. In these tuberculous cases, where there was pain and where they were running down in spite of the best you could do in the way of medicine, then it might be necessary to locate the tubercular focus preparatory to operation. He had a case last year of a man who came to him with an enlarged tender kidney, and both testicles involved. He was almost skin and bones. It seemed as if he were in the worst possible condition. He was poor, and lived in an unhealthy locality. Fortunately, he had a very faithful wife, who fed him up, made him drink milk and other things. That man gained on creosote and cod-liver oil about thirty pounds, and really did wonderfully well. He urinates now every two hours. The kidney lesion apparently persists more obstinately than the lower lesions. The neck of the bladder having become quite free from involvement, but the kidney remains tender. There is a good deal of albumen in the urine and a good many casts. The speaker thought that the kidney would become quiescent after a time, and so long as the man had gained so much under such adverse circumstances, he thought he would probably get well.

The speaker said he operated on a man a little time ago with both testicles suppurating and with abscesses along the cord; one of them plugging an old pouch where a hernia had come down. The man had great frequency of urination and much fever at night. He took out both of his epididymes and the cord as far as he could and cleared the pus out of the groin, and he immediately gained ten pounds and his bladder had become quite tolerant, the operation not having stirred up the seminal apparatus. The speaker was very much afraid that removing the abscesses and putting him to bed would cause acute suppuration in his seminal vesicles. The speaker said he remembered a similar case when with Dr. Keyes, where a like operation lit up an acute tubercular seminal vesiculitis, which resulted fatally. The speaker had that case in view when he took hold of this case.

You could not always tell in these cases just where you were coming out. Those tubercular kidney cases showed the great value of the secondary nephrectomy in large kidneys where there was a vast amount of pus. The kidney shown by Dr. Brown contracted down very greatly after the primary nephotomy. The speaker said he had a case something like that some time ago.

DR. PAUL THORNDIKE of Boston said he thought it was always a good plan to remember in these cases of stone impacted in the ureter that the vagina should be examined. He remembered one case of Dr. Cabot's in Boston where a stone was very easily and quickly removed from the ureter through the vagina and that such stones can often be removed without the use of general anesthesia.

DR. CHETWOOD asked if Dr. Brown had had any experience with the use of solutions of nucleic acid, hypodermically or internally? Dr. Vaughn of Ann Arbor had reported three cases of bladder tuberculosis, two of which had improved and one was cured by the use of nuclein hypodermically and locally. Dr. Chetwood was rather favorably impressed with these reports, and determined to try this method in a case under observation. His patient was in good bodily health, but undoubtedly had bladder tuberculosis, which was demonstrated by bacteriological examination. His symptoms consisted of very frequent and painful urination; his urine appeared as bad as any prostatic case might, being full of blood-clots, mucus, and pus. Local treatment availed nothing, and he did not tolerate the silver solutions well, and did not seem to improve under any local application. He was put upon nuclein hypodermically in increasing doses for an extended period. The improvement was striking and progressive. The hematuria ceased and the pus almost entirely disappeared. Dr. Chetwood had examined him with the cystoscope on several occasions and found an ulceration in the bladder at first, which seemed to be disappearing at the subsequent examinations.

DR. BANGS said he had recently had a case of tuberculosis of the bladder with hematuria in a young man, aged thirty-two. The hemorrhage was the thing that attracted the speaker's attention—it was so persistent. He put him to bed, examined him with the cystoscope, and found no ulceration, but a diffused hyperemia of the base of the bladder. In three days his hemorrhage ceased. He gave him iodoform injections and let him alone. His amelioration went on to such a striking degree he wanted to get up and go back to business, which was that of engineer. The man was not in bed two weeks—about ten days, the speaker thought. His amelioration was marked, although he did not consider him cured by any means.

DR. BROWN said he was only too glad to have heard Dr. Chetwood's experience with nuclein. Although he was skeptical about everything new that was brought out for tuberculosis in any region, he thought it would be well to give it a thorough trial.

He thanked Dr. Thorndike for his allusion to the vaginal route for renal calculi lodged in the ureters in females. The speaker said he should have stated in reporting this case that a vaginal examination was very carefully made a second time after having determined that there was a calculus lodged in the ureter four inches from its vesical opening as measured off on the ureteral catheter. He then wanted to see if it were possible to palpate a calculus at that point by combined manipulation. This young woman was a good subject—she was so very thin, and it would have been easy to have felt anything even as small as this calculus was had it been within reach of the finger in the vagina; but that could not be done. He rather thought two inches was about the limit of dis-

tance in the ureter in which, in favorable cases in females, a calculus could be palpated and removed by vaginal access to the ureter. He did not know but what Dr. Thorndike meant that after he (Dr. Brown) had arrived at the conclusion that the calculus was at four inches distance he might better have made a vaginal incision into the ureter.

He was very glad Dr. Bangs had called attention to what, in his large experience, had proven to be a valuable test for vesical tuberculosis; namely, the use of a weak solution of nitrate of silver in the bladder. The speaker had known for some time from experience that weak solutions of nitrate of silver were of no value in vesical tuberculosis, and yet in this case he was unwilling to use a strong solution because he was not sure enough that there were vesical lesions. Dr. Bangs' suggestion as to the use of general anesthesia and cystoscopy to determine the presence of such lesions would be first indicated before resorting to strong injections. However, he had hoped, because the patient's urethra had responded so well to topical applications, that his bladder might possibly be an exceptional one and derive some similar degree of relief.

He would say to Dr. Bangs that he had had no experience—no satisfactory experience—in the use of X-rays to evidence renal or vesical calculus. He had had several excellent opportunities to have used the X-rays, but failed to do so.

One such case was that of a woman, where the speaker was able to conclude the presence of a large calculus in the right kidney by palpation and ureter catheterization and comparative tests of the right and left urines. Dr. Briddon subsequently removed 149 calculi from that kidney, the largest of which resembled a hen's egg. Although of uric-acid formation, this case should have shown a decided X-ray shadow.

He agreed with Dr. Fuller perfectly about the disadvantage of stirring up any of these tuberculous lesions wherever they may exist, as there was a fair chance of improvement by proper constitutional treatment combined with climate and hygiene. He disagreed with him, however, in the main, in thinking that it was not worth while to find out as well as we could the seat of the tuberculosis, for the reason that in his own rather limited experience he had seen so many cases—or a certain number of cases—which had been adjudged vesical tuberculosis, when but unilateral renal tuberculosis had been made manifest, and the diseased kidney removed, the vesical lesions previously noted by the cystoscope had disappeared, as well as the clinical manifestations, such as frequent urination and discomfort. The speaker said he though there was no form of urinary tuberculosis which was at once so grave and at the same time so hopeful in prognosis, if the operation was successful, as renal tuberculosis. If there was renal tuberculosis on one side and a healthy kidney on the other you could hope to avert certain death and turn out a fairly healthy and very comfortable individual. The only way to acquire the valuable data authorizing the operation was by ureter catheterization.

DISCUSSION ON DR. THORNDIKE'S PAPER.¹

DR. GEORGE E. BREWER said that, as Dr. Thorndike remarked, these cases were extremely rare, and very few had an opportunity of seeing many. He personally had only seen one. That case, which had come to him some days after the injury, was, he was convinced, sacrificed because at the time of the injury sufficient drainage was not brought about in the way he mentioned. He could

¹ Published in May number, page 210.

see no other possible conclusion to arrive at than those which he had derived from the logical deduction in those cases. We must find where the extravasation is, locate it accurately by an exploratory laparotomy, and drain thoroughly. It was necessary in all intraperitoneal ruptures, and of the greatest help in locating extra-peritoneal injuries and enabling us to properly drain them. In those cases which were so extremely rare he felt that we often had very vague ideas as to what to do; and now Dr. Thorndike had brought this before us so forcibly that the speaker agreed with every statement he had made.

DR. EUGENE FULLER said there was no doubt of the soundness of Dr. Thorndike's point. Of course, in a great many cases, even if you did not find rupture of the bladder you might locate the extravasation by opening the abdominal cavity. You could see extravasations extending upward to the kidney behind the peritoneum and also lateral extravasation. Although you could not open them that way, you could, by opening the abdomen, find just where to reach them by an extra-abdominal incision. The speaker said he had not seen so many cases of extra-peritoneal rupture of the bladder as he had of rupture of the deep urethra complicated with extravasation and gangrene. He had had a number of these cases, some of them with a temperature of 106, and with gangrene of the pubic region, scrotum, and perineum. His mortality in these cases had been extremely slight, simply because in all of them he made it a point to go through the perineum into the bladder and through the suprapubic region also, thus draining both ways. In two of the cases Dr. Thorndike mentioned subsequent operations for freer drainage were demanded. In one of them the suprapubic operation was primarily done, and the perineal was not, and then afterwards the perineal was done, because it was found to be necessary. In another case the perineal operation only was done, and then, later on, the suprapubic was also found necessary. You did not add any more to the danger of the case by cutting both ways. These cases, if drained well, even though gangrenous, do extremely well.

DR. BANGS said that the whole paper was so interesting to him that he could not select very well the points he would like to talk about. It seemed to him the principle was established without discussion that in some cases there was no time to make a definite diagnosis, and in the absence of a definite diagnosis it would be best to do laparotomy. He agreed with the reader of the paper in this. The surgical principle, of course, was to ascertain the locality of the lesion and drain according to the location. It had been his misfortune to have had two cases of rupture of the bladder. One of them he caused himself in preparing to do a suprapubic drainage, while injecting the fluid by means of a hand-syringe. He thought he exerted very little force, but after he had injected two or three ounces he experienced a very singular sensation. It was evident the fluid was still passing from the syringe, but there was a peculiar, soft, rending sensation and a sudden loss of the resistance of the bladder. The man was under ether at the time. He said to his assistants, "I think I have ruptured this man's bladder." He injected a little more, and, as it went with perfect ease, he withdrew the catheter and immediately made a suprapubic incision. In the space of Retzius was a portion of the fluid, which had escaped through a rent in the anterior wall of the bladder. In this case the procedure was perfectly simple. It was not even necessary to sew up the bladder. In the second case he was hurriedly summoned to see a gentleman who had been under his observation once or twice only. He was a Scotchman, a doctor, a man of leisure, and was on a visit to this country. He had been under the care of Mr. Symes of Edinburgh,

and as a matter of interest the speaker said he brought an instrument to show the Section. The patient had a stricture of the urethra. Mr. Symes had given him this instrument with which he was to keep his urethra open, but he had tried with this thing to keep his urethra open and failed; then had gone to local doctors, where he was, had his urethra stretched a little bit, and finally came to New York for a time. He had been to see the speaker once or twice, and the speaker objected to the method of dilatation, and proposed to do something more radical for him. The patient thought he could get on very well with the Scotch method and so left him. The speaker was suddenly called to him. He hurried to the house, and the patient said: "Doctor, on attempting to urinate something gave way. I have only passed a few drops. I am conscious of something wrong in my abdomen." A hurried examination showed distention of the abdomen already beginning; he had had an intraperitoneal rupture of the bladder. The speaker's intention was to make perineal drainage for two purposes: first, to relieve the impending dangerous condition, and, also, to relieve his strictured urethra. He hurried back to his office, got the necessary instruments, and when he returned to the house the patient was moribund, and died while he was there. He immediately obtained from his wife the opportunity of making an autopsy. He made a partial autopsy, and found that there had been an intraperitoneal rupture near the base of the bladder, at a locality where a small uric-acid stone had lodged. The speaker said this recalled to him the fact that he had read somewhere a statement that the bladder did not rupture unless there had been some antecedent pathological process to weaken its walls. This seemed to verify this statement. Here was a case confirmatory of the first point Dr. Thorndike had made. It was almost impossible to make a definite diagnosis. The shock of commencing peritonitis had killed him before the speaker was able to relieve him. Manifestly also if perineal drainage only had been done, he would not have relieved him. The laparotomy would have been the scientific surgical procedure for his relief.

DR. RAMON GUITERAS said he felt repaid for coming this evening and listening to Dr. Thorndike's paper. It had certainly been very instructive, and it had made him think that perhaps in the past he had not considered this particular accident as thoroughly as he should have. He could speak feelingly on this subject, for he, like Dr. Bangs, had had two cases, but he regretted to say that he had been more unfortunate in that both of his had ended fatally. However, they made the most profound impression upon him, and with the permission of the Section he would say a few words regarding them.

CASE I.—In making his rounds in one of the hospitals with which he was connected he saw an old man from day to day suffering from a chronic ulcer of the leg. After trying several remedies upon him without improvement, he came to the conclusion that it was connected with a necrosis of the tibia, and he accordingly made an exploratory incision and found that he could enter the medullary canal and pass a probe from the region of the knee to that of the ankle. There was no sequestrum present; the hemorrhage from this incision was so great that he had to pack the canal in order to control it. The next day in making rounds he found that the patient had not passed any urine, and percussion over the pubes showed dulness. He told the house-surgeon to catheterize him. On the following day the patient again complained that he had not passed any urine at all since he had been operated upon. The house-surgeon explained that the man was old, mentally weak, and probably did not know that he had been passing his urine, but as his bed was quite wet, he thought that he had probably passed

a considerable quantity. He added that he had not been able to catheterize him. There was at this time no dulness over the pubes, and the patient felt better than on previous day. The next day, 72 hours after the operation, on making rounds, he found the patient in collapse. He also had marked tympanites. After a consultation with one of the other attending physicians it was decided to tap him, and a trochar and cannula were accordingly pushed in over the pubes in the direction of the center of the bladder. On withdrawing the stylet a stream of what appeared to be blood shot out to a distance that was quite surprising. The explanation of the case was probably as follows: The patient had a hemorrhagic diathesis; evidently his bladder had ruptured anteriorly into the extra-peritoneal space, and when the trochar had been withdrawn, the pressure of the gases in the intestines was so great that it caused this gush of urine and blood. The patient lived but a few hours afterwards.

CASE II.—The next case was still more interesting and instructive. This occurred in a man, sent into another hospital with which the speaker was connected, suffering from incontinence of urine; that is to say, he had constant dribbling, but in order to pass a certain amount of urine above this dribbling he had to strain to such a degree as to cause a prolapse of the rectum. About every half-hour the patient would squat down, the rectum would prolapse, and then after a great deal of painful straining he would pass a small amount of urine. This was bloody and contained considerable pus. The speaker washed out his bladder, cystoscoped him, and saw a calculus embedded in the bladder wall near the right ureter. The patient, the next day, was very much worse, and he performed a perineal section upon him and drained his bladder. He developed a peritonitis and died in a few days. On autopsy it was found that he had gangrenous peritonitis and a rupture of the bladder through the cavity in which the stone had been embedded. The patient also had a pyelonephritis, which would alone have been sufficient to have caused his death, if he had not suffered from any accident. His bladder was evidently ruptured before he came to the hospital, and the reason why the speaker could not inject more fluid into it was because there was only a small amount of leakage from the opening or tear from the diverticulum into the pelvic tissues, and the peritoneum at that time was not involved.

It seemed to him that in all cases of rupture of the bladder the condition of the urine had a great deal to do with the prognosis, as foul urine would naturally give rise to a much more severe process than if it were normal; and, of course, the age of the patient had also to be taken into consideration, as in the aged the chances of recovery were much less than in the young.

In every case the intra-peritoneal variety would be by far the most dangerous. He thought that, as Dr. Thorndike had pointed out to them to-night, in all cases it would be well to perform a laparotomy, as this would enable us to explore that part of the bladder covered over by the peritoneum, and this was one point of vital importance, because if the rupture was intra-peritoneal, we could then sew up our wound, and if it were not extra-peritoneal, we could ascertain better where extravasation was and what steps should be taken to relieve it.

DR. A. L. FISK said he must express his pleasure also in this paper of Dr. Thorndike's. One thing that had impressed him was the urgency of immediate operation in these cases, as in all cases of rupture of the viscera within the abdominal cavity. Dr. Thorndike's advice to perform abdominal section in order to locate the site of the rupture was in accord with good, sound, surgical principles. We do not hesitate to do this in as grave conditions connected with other

viscera, therefore, we should not hesitate in these cases. In women, vaginal drainage he should presume, might be employed occasionally.

DR. BROWN said he could not let the opportunity pass without expressing the highest approval of all Dr. Thorndike had brought before the Section regarding rupture of the bladder. It seemed to him that nothing had appealed to him more forcibly than the deductions which the reader of the paper had drawn for the treatment of the grave complications of this injury. He thought Dr. Thorndike could not take too great satisfaction to himself for what he had done in making clear the positive indication of immediate laparotomy to ascertain the state of things in the abdominal cavity, and if the rupture was not an intra-peritoneal one, to then inject water or air into the bladder to determine the location of the extra-peritoneal diffusion, and then, after closing up the intra-peritoneal wound, to provide adequate extra-peritoneal drainage for the rupture. Where the urine is normal and suture of the bladder feasible, this is indicated, provided the cellular planes are drained and the bladder sutures protected by perineal drainage of the viscera.

DR. SWINBURNE said he wished to express his appreciation of Dr. Thorndike's paper. One thing he wished to ask in regard to one case of which the specimen was presented, was whether the woman had a healthy bladder or whether it was diseased.

DR. THORNDIKE said that the whole bladder could not be removed, but so far as the specimen showed the bladder was a normal bladder with a recent rent.

Regarding Dr. Fisk's remark as to the possible use of the vagina as a route for drainage, he did not mention that because apparently the statistics show that a rupture of the bladder is an accident occurring more frequently during intoxication, therefore, more frequent in men than in women.

Neither did he speak of the injection of air into the bladder, because he had no personal knowledge of that procedure. He could only thank the gentlemen for the opportunity of coming here and saying these few words.

The Tendency in Some Syphilitic Families for Certain Organs and Tissues to Be Specially Affected.—JOHN THOMSON (*Scottish Med. & Surg. Journ.*, Jan., 1899).

The histories of four families illustrating this tendency are given. In the first, there were seven births and no miscarriages. Six children were syphilitic, four showing extensive choroidal and retinal changes. In the second family three children developed epiphysitis, the fourth having no symptoms. In the third, two of twelve children who survived birth were deaf. In the last family of ten, five showed no sign of disease, three died early in life, and two suffered severely from periostitic swellings in both extremities. The author draws attention to the extreme meagerness of the literature on this point and to the difficulties attending investigation, because of the mortality among syphilitic children, and because frequently, snuffles and rash are the only symptoms ever present.

Therapeutic Notes.

Treatment of Soft Chancre by Means of Steam.—E. K. MANFAWOWSKY (*Tratch*, p. 329, 1899).

In eighty-nine cases of chancre, the diagnosis was made clinically, not by demonstration of the Ducrey bacillus. Among them, twenty were accompanied with buboes and one with necrosis. The localization was on different parts of the penis. The author placed the end of Professor Shegirer's steam apparatus at a distance of 4-8 cm. and subjected the sore to the action of the escaping steam (50-60° C.) for three to ten minutes. The surrounding healthy tissues were protected by means of gauze: after 1-2 minutes, the floor and the edges of the sore, under the influence of the steam, became pale, then rose-like color. Later, after 3-4 sittings, the sore begins to bleed, and takes on a healthy appearance. A complete cure was obtained by the author after ten to fifteen sittings.

The Localization of Obscure Pain in the Side by Means of the Renal Catheter.—H. A. KELLY (*Med. Rec.*, p. 708, 1899) finds that by the rapid injection of 8 c. c. to 20 c. c. of a bland fluid through the renal catheter when in place, thus causing a sharp renal colic, the patient can tell at once whether the pain previously complained of was situated in the kidney, and in which kidney.

REYNOLDS has made use of a similar method with satisfaction. Previous to examination the patient drinks large amounts of water for twenty-four hours, the renal catheter is passed and blocked. This soon gives rise to a renal colic.

Treatment of Baldness by Simple Aseptic Irritation.—JACQUET (*La Presse méd.*, December 10, 1898) says that while all dermatologists agree that cutaneous irritation is the first principle in the treatment of baldness, there is no agreement as to the amount of irritation which will give the best result. Permanent irritation is certainly not as good as a slight irritation which can be renewed at will. By this manner one gets the advantage of the vascular dilatation, the hyperthermia, which favors the papillary vitality, and avoids the ultimate slowing of the blood stream, and the leucocytic migration and interstitial exudation which takes place if the irritation is continued to the point of inflammation. Transitory hyperemia can best be caused by repeated slappings of the scalp with a brush made of good pig's bristles. The brush should be applied all over the bald area, and along the margins of the hair. In a few seconds the scalp will become red and pulsating, a condition which will last for half an hour or more. The treatment should be repeated morning and night. In his own case Jacquet caused the hair to grow again on a bald spot in his beard as large as a two-franc piece, by making applications of the brush in the manner described, twice a day for four months. In other cases he has made more frequent applications, five or six a day, and has attained more rapid results. To keep the brush in an

a-septic condition, he plunges it each time before it is used, into the following solution:

Alcohol.....	℥ iv
Ol ricini.....	℥ i
Hydrarg. chlor. corros.....	gr. ij
Ext. opoponacis	{ aa.....
Tinct. cocci cact.	
	gtt. xxx.

The brush is shaken as dry as possible before it is applied. If a brush is used which is made of wires with a rubber back, it will be very easy to keep it a-septic by this solution.—*Gaillard's Med. Journ.*

Treatment of Ulcer of the Leg.—FREUDENTHAL (*Monats. f. Prakt. Derm.*, No. 3, 1899) thinks the ulcer should be thoroughly cleansed with peroxid of hydrogen, formalin, etc. The application and its form in solution, powder or salve should be changed from time to time. Dressings should be renewed every day or two. When the ulcer is once covered, the epidermis should be hardened by a 2-per-cent. resorcin salve. Rubber bandages and stockings should not be used; tricot, five inches wide is a better material. If indolent, the ulcer should be touched with the Paquelin or curetted.

Tricophytosis of the Nails.—An application consisting of a saturated solution of metallic iodine in a saturated solution of iodide of potash has been found efficacious in this troublesome condition. The nails are apparently well in 3-4 months. Applications should be made twice a day. The power of the solution lies probably in the large amount of iodine it contains; it stains very slightly.—*Ed.*

Prurigo and Pruritus.—SAVILL (*Treatment*, December 22, 1898) having noted the failure of external applications to relieve, turns to constitutional remedies. Discarding for one reason or another, carbolic acid, gelsemium, pilocarpin, chloral, he uses calcium chlorid in large doses following Wright's statement that it increases the coagulability of the blood. Experience with the drug is still limited but still gratifying.

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Original Communications.

PRESIDENT'S ADDRESS BEFORE THE TWENTY-THIRD
ANNUAL MEETING OF THE AMERICAN DERMATOLOGICAL ASSOCIATION.¹

BY JOHN A. FORDYCE, M.D.,

New York City.

FOLLOWING the custom which has been generally observed since the organization of our Association, the pleasant duty of greeting the members at this, our twenty-third, annual meeting devolves upon me. It is also a pleasure to recall that in this city our specialty has been enriched by the contributions of one of our most representative members, the final completion of whose comprehensive treatise on dermatology we are anticipating in the near future.

The desirability of devoting more time at these reunions to the demonstration of patients, illustrations, and pathological specimens has been sufficiently emphasized by my immediate predecessors in this office, and the success which has attended such exhibitions in the past, with the promise of a like result at the present meeting, should and doubtless will, make such demonstrations a permanent feature of our annual meetings.

Granting the value of carefully studied and reported cases of unusual affections or accurately controlled observations on the applica-

¹ Held in Philadelphia, May 30, 31, and June 1, 1899.

tions of medicinal agents, in no other way can our knowledge be so advanced or our diagnostic abilities be aided to such an extent as by demonstrations of this kind. Should we determine to adopt this change permanently in our meetings, the necessity of holding them in one of the large cities, as Dr. White has suggested, where clinical material is attainable, is obvious. As the primary object of our meetings is rather for scientific advancement than for recreation, it would not seem probable that valid objections could be raised to the proposed change.

The question of the proper publication of our transactions, which has been dwelt upon at some length by the President of our twenty-first annual meeting, should continue to engage our serious consideration. It will be conceded by all, I think, that our proceedings should be published in full, in volumes of uniform appearance, with illustrations when it is feasible to use them. Few of our members, in my opinion, would object to the increased assessment necessary for such an object, and with somewhat larger membership this assessment need not be a burden to any one. The transactions of our last meeting is certainly a very creditable volume, and should stimulate us to make our future ones of equal or greater merit.

The observation of the request which is now printed on the program that duplicate copies of the papers read be handed to the Secretary at the time of reading would greatly facilitate their subsequent publication in the volume of transactions. The Secretary has not always had the cooperation of the members in this respect, and delays have resulted which might have been avoided. The custom of reading imperfectly prepared papers from notes or the verbal presentation of a subject is not to be commended, for, as a rule, such communications, which may contain much that is of value, are in a great measure lost in our published reports.

It will be of more general interest to pass from the consideration of matters purely personal to those which pertain to the advances which have taken place in our special work during the past year. The general recognition in teaching institutions which is being accorded our specialty is a source of satisfaction to all of us.

Although the field of dermatology is still considered by many of our colleagues in other branches of medicine to be a limited one, which is chiefly entitled to recognition by reason of a complicated and burdensome nomenclature, we are, I am glad to say, by careful clinical and pathological observations, gradually obtaining proper credit for our work, and should, by reason of the readiness with which living tissues may be excised and studied, throw some light on the general problems

of inflammation, malignant disease, and infectious processes which concern all interested in the scientific side of medicine.

To those of us connected with teaching institutions the complications and imperfections of our nomenclature, due to our ignorance regarding etiological questions, handicap us seriously in our endeavors to impart to students correct ideas regarding the nature of many of the affections which come before us.

While it is possible to differentiate skin diseases with greater accuracy than affections of the internal organs, we are disposed, I think, to attribute too great importance to trifling modifications in the character, grouping, and distribution of lesions, and to neglect more important features which certain classes of diseases have in common.

The large group of inflammatory affections comprising the various erythemata, urticarial eruptions, dermatitis herpetiformis, purpuras, pemphigus, etc., have certain common manifestations, and may in time be shown to depend on the similar toxic agents acting on the vascular apparatus of individuals of varying degrees of susceptibility. We know, too, that toxic agents derived from the same source differ greatly in their virulency at times, or may be modified in their action by a partially acquired immunity in the affected individual.

The experiments of the pathological chemist have shown that the same organism may produce two or more substances of varying degrees of toxicity; the products of the bacillus of tuberculosis in the skin, for example, may differ from those produced by the organism in the lungs, bone, or lymph-nodes, and this difference may explain the variations in the clinical course of lupus vulgaris as it affects the skin and mucous membranes, and the true tuberculous ulcer of the mucous membranes and adjacent skin. The same organism previously inoculated in the skin producing its peculiar toxin gives rise to a definite clinical picture, while the inoculation resulting from the bacilli grown in the lungs, with its different or more virulent toxin, results in a condition which is quite unlike the slowly progressing lupus.

Pyogenic organisms, too, present great variations in their virulence according to their source and to other conditions not well understood; and thus the lesions produced by them are not always of uniform appearance nor identified in their clinical course.

It should not be our endeavor, above all, in teaching dermatology to students, to lay too much stress upon minute distinctions in closely allied infections, but rather to group eruptions which are related etiologically. As our knowledge had grown, many fantastic names indicating clinical appearances of no importance have lost their value and should be banished from our text-books. Unfortunately, we must yet preserve many such terms of uncertain value, which convey nothing

to the student, but are of some use as indicating the development of our specialty.

Fortunately the investigations of the pathologists and bacteriologists have given us accurate knowledge regarding the etiology of a number of diseases with which we have to do, and by analogy we are justified in believing that other affections, like syphilis, granuloma fungoides, etc., have a bacterial origin.

The temptation has been strong, however, in the past few years during which the field of bacteriology has been so assiduously cultivated, to ascribe, without sufficient proof, a parasitic origin to many diseases of the skin that subsequent research will probably show to be erroneous.

Recent investigations regarding the rôle of toxins in disease have opened a wide field of speculation and caused us to look with more respect on the opinions of our forefathers, the humoral pathologists.

Our modern views have, however, a more scientific foundation and promise to elucidate some of the obscure notions that have been held regarding the pathogenesis of certain eruptions. We are not only concerned with the toxic agents generated by micro-organisms and products of imperfect digestion, but with those formed by the cells of the body themselves as the result of delayed and incomplete metabolism.

The various rashes due to the ingestion of drugs and those following the use of animal extracts and the antitoxins suggest that many eruptions of an inflammatory nature depend on the action of some poison either directly on the blood-vessels of the skin, or indirectly through the influence of the vasomotor system or on the tissue-cells themselves.

Van Cott of Brooklyn, in a very interesting paper, recently published (*Brooklyn Medical Journal*, May, 1899), has reviewed some late work on the influence of the toxins of pathogenic micro-organisms upon the parenchymatous tissues, and shows how the complicated changes which are taking place in the cell and its nucleus are interfered with by the action of these poisons. He also alludes to the effects produced on the tissue-cells by the experimental use of antipyrin, iodid of potassium, quinin, etc., resulting in asymmetrical karyomitosis and changes in the cytoplasm leading to various degenerations.

The recent claims made regarding the influence of toxins in producing tissue changes are, therefore, not based on pure hypothesis, but on careful experimental observation, and promise to yield important results when applied to the histological study of skin diseases.

A Salter, in an article published in the *Lancet* in 1898, on "The Elimination of Bacterial Toxins by Means of the Skin, with Especial

Reference to the Presence of Tuberculin in the Sweat of Phthisical Patients," believes he has demonstrated that which has long been surmised, *viz.*: the presence of the toxins of infectious diseases in the sweat: speaking generally, the action upon animals of the perspiration in these cases agrees with that of the toxin itself.

Salter devised a new and simple method of obtaining perspiration. He causes it to collect in beads and aspirates it with a pipette having a capillary point. He has been able in this way to collect half an ounce in half an hour.

Night-Sweats of Phthisis.—Injected into tuberculous rabbits gave typical tuberculin reaction. Verified twelve times. He, therefore, thinks it wrong to check these sweats, as with atropin, etc.

Pneumonia Sweat.—Obtained at time of crisis and injected into mice and rabbits gave typical picture of pneumococcus septicemia.

Diphtheria Sweat.—Obtained in but two cases. Injected into guinea-pigs caused necrosis *in situ* and in general agreed with reaction of the diphtheria toxin.

Such elimination of toxins by the sweat-glands may account for certain deep-seated necrotic affections, as hydradenitis, which originate about the coils.

In a contribution to the study of eczema, Leslie Roberts (*British Journal of Dermatology*, Jan. and Feb., 1899) has propounded a very ingenious theory, which is worthy of careful consideration. He refers to the well-known fact that epithelium in the lower forms of animal life is composed chiefly of glandular cells, which are remarkable for the activity of their protoplasm. In addition to other secretions they also produce a ferment. He has demonstrated by certain experiments, which he details, that the human epidermis under certain conditions has not lost this power possessed by the lower form of life.

After the consideration of the great activity of epithelial metabolism he discusses the effect of various stimuli upon this metabolism, and in this he is guided by the theory proposed a number of years ago by Hering of Prague, which has recently attracted the attention of physiologists. Hering's theory has to do with the metabolic processes which are constantly taking place in all living cells, in other words, with the assimilation and dissimilation by the cell of nutritive matter, which is brought to it, and the disturbances of these physiologically balanced functions under the influence of various stimuli.

In applying this theory to the explanation of various forms of eczema Roberts distinctly disclaims his belief regarding the specific nature of the disease. He regards eczema simply as the reaction in the derma to irritants seated in the epithelium: and these irritants to

be of the nature of ferments or products of epithelial metabolism. Collectively he considers all causes of eczema to be epithelial stimuli, which may be of external or internal origin, or result from the influence of over-stimulated nerves. His conclusions, therefore, agree in the main with the views held by the majority of clinicians, but are founded on a more scientific consideration of the physiological and pathological behavior of living matter.

Kromayer (*Archiv für Entwicklungs Mechanik des Organismen*, April 18, 1899), in a lengthy and profound article, which is by no means clear, attempts to apply Roux's ideas to the pathology of the skin as Leslie Roberts applies Hering's views regarding anabolism and katabolism. Kromayer regards Roux as very far ahead of his contemporaries as to histogenesis. Roux has introduced numerous terms, such as cytotaxis, the property of cells by which they arrange themselves, and cytotropism, the capacity of cells to attract or repel each other.

Kromayer further introduces the term *epitheliophilia* for the positive cytotropism of epithelial cells: and *desmophilia*, the ability of epithelial cells to be attracted to connective-tissue elements and joined thereto. Epitheliophilia is seen to best advantage in the resolution of a pemphigus bleb. Serous interstitial edema having previously separated the cells, they quickly assume their former relations as soon as the edema is absorbed. Desmophilia may be seen to advantage in regeneration of superficial defects of the skin, in which the rete-cells and granulation-tissue from the corium unite in the healing process.

Kromayer here interpolates a section on the mechanism of the skin. The amount of protoplasm increases in the form of trabeculæ, spines, etc., from without inwards, so that it is most marked at the lowest stratum of the rete, which, in contact with the basic columnar layer, and practically absent from both the superficial layers and the said columnar layer. This ground protoplasmic system is destined, according to the author, for purely mechanical usages. It protects the skin from vertical and lateral pressure, etc. Kromayer decides that the basic hyalin membrane which separates the columnar layer of the rete from the connective tissue is a joint product of epithelial and connective tissue.

Wherever vertical pressure occurs, as in the palms, both the epithelial and papillary bodies increase together; they form a single parenchymatous organ. The greater the pressure the more the papillæ tend to become thinner and elongated. The papillary body is the expression of the tendency of the parenchyma to resist both external irritants and the proper motion of the skin. The thicker the horny

layer the better developed the protoplasmic system of the spinous layer and the firmer the connective tissue. The papillary body is a product of the joint activity of epithelia and connective tissue.

As regards benign epithelial tumors it is possible for epithelial cells to proliferate without any participation of the connective-tissue; we have pure epithelial tumors, pure desmoid or desmo-epithelial, in which the tissues of the contact zone are increased. Pure epithelial increase is limited by the convex limiting surface, and pure desmoid increase is similarly limited. Desmo-epithelial growth is characterized by narrow papillæ in conjunction with narrow rete prolongations. The desmoid or epithelial elements may predominate.

Carcinoma.—Here the normal epitheliophile and desmophile properties of the epithelial cell undergo a change (anaplasia of Hanse-mann). The loss of epitheliophile quality is shown by the absence of protoplasm fibers, prickles, and kerato-hyalin. The elements are, therefore, but loosely attached in cancer-nests, etc. Enough epitheliophilia remains to enable the cancer-cell to unite with normal epithelia (Ribbert). (In all benign epithelial growths the separating stratum (hyalin layer) is preserved as well as the cylindrical epithelium, which is superposed.) In cancer the altered epithelium exhibits a changed desmophilic property: it invariably causes the proliferation of a round-cell granulation tissue derived from the connective tissue. This process necessarily destroys the collagenous and elastic tissues. This altered epitheliophilia and desmophilia explains the entire subject of cancer. The action of the cancer epithelia upon connective tissues resembles that of bacterial toxins. These altered epithelia may, therefore, be regarded as parasites. *Conclusions.*—Growth, histogenesis of carcinoma, etc., can be explained only by anaplasia (ability to proliferate, modification of epitheliophilia, and desmophilia), whereby connective tissue is excited to proliferate.

Serum Treatment of Skin Diseases.—The treatment of cutaneous diseases by antitoxic serums has not been employed to any extent by the dermatologists. Some excellent results have, however, been reported in erysipelas, phlegmonous inflammation, carbuncle, and allied conditions from the use of the antistreptococcus serum of Marmorek. Its efficacy seems to diminish with age; it is, therefore, necessary to use a serum which is comparatively fresh.

The serum treatment of syphilis seems to have proved a complete failure. Neisser (*Archiv für Dermat. u. Syph.*, B. XLIV., p. 431), after an exhaustive review of the subject to date, concludes that all results are absolutely negative. Koch's new tuberculin R. has likewise proved disappointing. Adrian (*Archiv für Dermat. u. Syph.*,

E. XLY., p. 97) says it produces neither local nor general reaction, while Schenber (*Archiv. f. Dermat. u. Syph.*, XLII.) has observed a reaction at the place of injection and at the foci of disease. The latter writer says the lesions improve only at the outset. These authors and others agree that the new possesses no advantage over the old, while the duration of the treatment is much longer.

About two years ago Dr. E. A. de Schweinitz, the director of the Biochemic Laboratory of the Bureau of Animal Industry of Washington, announced that he had obtained an anti-tubercle serum by inoculating horses and cows with attenuated cultures of tubercle bacilli. With the serum so obtained he had secured partial or complete immunity to tuberculosis in guinea-pigs. These experiments have been continued, and he is led to believe that the progress of tuberculosis in man can be checked or cured by the use of this agent. Dr. Stubbert, of the Loomis Sanitarium, at Liberty, has used the serum in a large number of cases of tuberculosis of the lungs, and has reported several cures. He states that in cases successfully treated the bacilli first disappear, but that the catarrhal condition persists for months, a result we would naturally expect of a remedy which theoretically acts on the direct cause of the disease. He has observed no recurrences in such cases after they have been returned to their old environments.

The remedy is an antitoxin analogous to the antitoxin of diphtheria and different in its mode of preparation and action from Koch tuberculins. It can be safely employed in daily subcutaneous doses of from ten to forty minims. The serum may be obtained gratuitously from the Department of Agriculture in Washington, and is in no sense a commercial preparation. Dr. de Schweinitz recently informed me that a physician with lupus of the face had been using it for a number of months, and had obtained great benefit, in fact, was almost cured.

About six weeks ago I obtained some of the serum and advised my colleague at the City Hospital, Dr. Greene, to try it in a case of extensive lupus, which was under his care.

The lesions in this case were more extensive than I had ever encountered in the disease, involving almost the entire face, the neck, a portion of the back, large areas of skin on both forearms, and smaller areas over the anterior surface of the chest and lower extremities. The patient, a man aged about twenty-five, said the disease had existed from early childhood. The serum in question has now been employed in daily subcutaneous doses of twenty minims for something over a month.

The improvement in the lesions has been so rapid as to be remarked by the members of the visiting and house-staff, and by all who saw the patient when he entered the hospital. The ulceration present in some

of the patches has healed, the infiltration has entirely disappeared in places, and is rendered much less pronounced in others. The result thus far obtained is encouraging and warrants a further trial of the serum. The extent of the disease in this case precluded the use of the methods commonly employed.

Grunfeld (*Dermatol. Zeitsch.*, p. 358, 1898) treated two cases of leprosy for six months with serum specially prepared by Merck. The photograph accompanying the article appears to show great improvement in one case. The author is satisfied that the method properly carried out is a gain in our therapeutic resources. It is generally conceded, however, that the serum treatment of leprosy is a failure. The view was almost unanimously held at the recent Berlin Congress of Leprologists.

"*Cas de dermatite herpétiforme sans éosinophile améliorée par les injections intra-fessières de sérum du lait.*"—Hallopeau (*Médecine moderne*, March 11, 1899) read a paper with the above title before the Society of Dermatology, etc., on March 9th of this year. Gimbert and Lereboullet had used this method in neurasthenia and debility with success. The milk-serum, as prepared by Lereboullet, is a substance capable of causing a febrile reaction which is often intense. Hallopeau obtained a very excellent result in a desperate case of Dühring's disease. In discussion Brocq appeared to think that the case was a striking one, without the possibility of error in diagnosis.

A number of positive results have been obtained in treating lupus vulgaris with the Roentgen rays, which should attract our serious attention. The nodules are said to disappear with punched-out losses of tissue, which readily heal with much less cicatricial contraction than after the ordinary procedures. Kümmell reports (*Archiv f. Klin. Chirurgie*, B. LVII., Heft. 3) ten cases which he has treated by this method. He deprecates burning the tissues, which only interrupts the treatment and does not contribute to the final cure. The result is due, in his opinion, to some peculiar effect of the rays on the nodules and not to the dermatitis which may be induced.

The cases thus far treated have been by foreign surgeons, the method not having been, to my knowledge, employed in this country. The X-rays have also been employed as a therapeutic measure in treating hypertrichosis with permanent results, but the results hardly justify its substitution for the more certain method by electrolysis.

The method of treating lupus vulgaris by concentrated chemical rays, first advocated by Finsen of Copenhagen, has, according to the published reports, excelled any other procedure employed against this intractable malady.

At a meeting of the Medical Society of Copenhagen, November 15, 1898, Forchhammer presented fifty cases cured by the method in question, with excellent cicatrices. Finsen passes sunlight through lenses made of rock-crystal, which permit the passage of the ultra-violet rays. These are concentrated on the affected part, which is rendered anemic by compressors made of the same material, *i. e.*, rock-crystal. His theory is that the bacilli are killed by the rays employed; bacteriological research appears to prove that the rays have such properties.

Jersild, in a recent issue of the *Annales de Dermat. et de la Syph.* (January, 1899), has employed Finsen's method in treating alopecia areata, and claims that the duration of the necessary treatment is but two months, instead of three to six months demanded by the older methods.

Van Niessen (*Wien. med. Woch.*, April, 1899) claims to have cultivated a bacillus from all the lesions of syphilis which is virulent to animals and produces a general disease analogous to syphilis in man. The bacillus agrees in many respects with the original Lustgarten bacillus. Some of the lesions produced in animals are primary induration, polyadenitis, multiform exanthem on skin and mucosæ, fatty liver and icterus, periarteritis, lymphadenitis universalis.

He admits that the cultures behave irregularly and are rather too few in number. The incubation period is much shorter, and the course of the disease much more rapid than in man and the exanthem not sufficiently typical.

Attention has again been directed to the use of blue glass as an aid in detecting syphilitic and other eruptions. Haan (*Jour. d. mal. cut. et syph.*, Oct., 1898) has long studied the principles of complementary colors in diagnosis of eruptions. By using cobalt glasses, or, better still, a cylinder filled with a cuprous solution which is monochromatic, he has been able to see the rashes of measles, typhoid, syphilis, etc. two or three days before they were visible to the naked eye. Jullien (*Annales de dermat.*, p. 69, 1899) has an extensive article upon blue glass in the diagnosis of syphilis. He has used the method for three years and has found it of value in detecting approaching, abortive and fading exanthems. He says that the credit of priority is due to A. Broca.

Herxheimer (*Munch. Med. Woch.*, Feb'y 28, 1898) reports four cases of a peculiar dermatosis in workers in chemicals exposed to nascent chlorine fumes. The eruption was seated on face, neck, breast, abdomen, and back. Innumerable papules and tubercles representing a folliculitis or acne; walnut-sized abscesses coexisted. Cough and expectoration present; general condition impaired. The eruption much resembled an iodic acne, and still more a bromic acne. This

affection was found to occur in other chlorin workers. Herxheimer proposes the generic term "halogenacne," comprising Cl. Br. and I. acnes. Course was eminently chronic, persisting long after cause was removed: continuous formation of abscesses.

The study of the etiology of malignant diseases continues to engage the time of many able pathologists, and numerous unconfirmed claims regarding the discovery of the organism of cancer have been made. Looked at from the standpoint of the clinician, there would seem to be little doubt as to its infectious nature. There are, however, many aspects of the disease which the parasitic theory fails to make clear, but which seem to be better explained by the embryonic theory of Cohnheim or certain modifications of this theory.

The consideration of the malignant tumors which have their starting-point in moles and those which develop in connection with the cutaneous changes in xeroderma pigmentosum certainly lends weight to the embryonic origin of such neoplasms. It is difficult to conceive how any organism could be able to act on epithelium or connective tissue so as to produce such modifications of growth and reversion to the embryonic type of tissue that occur in these mysterious processes. It will be a long time, I venture to predict, before we clearly comprehend the true pathogenesis of malignant diseases.

In spite of the excellent clinical and pathological work which has been accomplished, who will claim that we have as yet made more than a beginning in interpreting the phenomena which are revealed to us as students of dermatology? New diseases or conditions are constantly presenting themselves for our consideration. Our knowledge of etiology and histogenesis is as yet in an undeveloped state. Our therapeutic resources are often crude, unsatisfactory, and merely experimental. The pathology of many conditions must be entirely reconstructed in accordance with more comprehensive views of general pathological laws, and a closer comparison of the changes which take place in the skin with those of the internal organs. A careful study of the diseases of the lower forms of animal life and of the vegetable kingdom would doubtless throw some light on certain obscure etiological questions. Neither the clinician nor the pathologist alone can claim the field for his own, but each must supplement and control the work of the other. In this way only may we expect to attain ideal results.

ACUTE GONORRHEA: ITS PREVENTION AND CURE.¹

BY THOMAS GRANT YOUNG, M.D.,

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IT is not my good fortune to be able to present any new revelation or entirely original research on the topic under consideration; but experience, in a large number of cases, study, and investigation have led me to decided views on this subject. Probably there is no subject pertaining to genito-urinary diseases that has received more attention recently; and about which many general practitioners know so little, as the successful treatment of gonorrhea.

It is within the recollection of many men when it was considered that gonorrhea amounted to but little more than a cold, and could be cured in nine days by balsam copaiba, and a mild astringent wash. This branch of medical science was discredited, and medical men of ability were loath to devote much attention to the study of this disease. In fact, it was considered beneath the dignity of the reputable practitioner, and those who did practise this branch of medicine were known by the familiar sobriquet "Clap Doctor."

If we are engaged in our profession, as we claim, for the protection and betterment of mankind, there is no wider field open where we can do more good in exercising our skill than in the successful treatment of this disease. When we stop to consider that the majority of all males become gonorrheic, usually before marriage, and that a large proportion of these remain in uncured chronic or latent stages, for indefinite periods, during which they may transmit this dangerous disease to others; that 10 to 30 per cent. of all females, exclusive of prostitutes, become gonorrheic usually after marriage; that gonorrhea in its results is of more importance to women than to men, being accountable for most of their pelvic troubles; and from this cause alone a license to marry may also prove a death-warrant to a confiding bride; that, according to Keherer, it is the greatest cause of sterility in both sexes; that, according to Magnus, Fuchs, and Lucius Howe, it is the greatest single cause of blindness, and 80 per cent. of total blindness in infants,

¹ Read before the Section on Surgery, American Ass'n. Columbus, O., June 9, 1899.

23½ per cent. of blindness in children, is due to an old gonorrhea in the father; that it is the principal cause of seminal vesiculitis,¹ with its attendant and far-reaching results; that no nationality, clime, or condition in life is exempt from its blighting effects; with these facts before us, we must come to the conclusion that this subject is worthy of careful consideration.

Neisser's discovery of the gonococcus in 1879 has, in all probability, permanently fixed the generic term gonorrhea in its application to a specific type of inflammation affecting the mucous membrane in both the male and female. The gonococcus, in whatever tissue present, is proof positive of the existence of the disease. Remembering that there are urethral discharges due to other microbes than the gonococcus, and again to no microbe at all, a positive diagnosis is of transcendent importance. These conditions are marked by certain developments known to the expert examiner, and confirmed by the aid of the microscope.

The herculean task of prevention of this disease rests largely upon our shoulders as medical advisers. Our efforts and measures for limitation and protection ought to be increased and improved in accordance with the well-known character of the disease. The sanitary supervision and regulation of prostitution has hitherto failed, because of crude and incomplete methods. This view of the matter involves questions of morality, ethics, and hygiene, which we can only mention, but have not time here to discuss. Those who are infected, men as well as women, ought to undergo proper treatment, with prolonged subsequent observation before sexual relations are resumed. A man, who cohabits while he can infect even the lowest prostitute, commits a crime far greater than he who disseminates smallpox. The physician should be scrupulously careful lest he convey germs by unclean instruments and hands. Towels, sheets, sponges, baths taken in common, contact with secretions at birth, all are known to be carriers of infection.

In family life the bride, wife, or mother comes to us in her innocence and ignorance, often too late, to avert the havoc wrought. We are even obliged to keep from her the real cause of her trouble. The man is the party to look to for redress; whether he be a young man or erring husband, a strong appeal should be made for the protection of a mother, wife, or sister against this dreaded disease, life-long misery, or even death itself. The family physician should instruct the parents of boys, and the young men themselves, of the great danger to the health of their future wives, should they contract gonorrhea. When we appreciate the fact of the great delicacy and hesitancy on the part of parents in talking about these subjects to their sons, we begin to

¹ *Columbus Med. Journ.*, Oct., 1898.

realize what an enormous task we have before us: but it is a just and righteous one, the responsibility of which we dare not ignore.

While on this subject we must not forget the duty parents owe their daughters as well. When the people become educated upon this point, the parents and guardians of young girls will be as careful to inquire after the physical condition, moral and social character of their daughter's suitors as they are now wont to do about the size of their bank account. When we consider the amount of misinformation and lack of education on this subject, we need not wonder at the position taken by the laity. The old teachings must be revised and the people must receive instructions through the family physician. When the people become educated upon this subject, as the profession now understands it, a corresponding amount of misery and death will have been prevented.

The plan of remedial treatment, which I have adopted and successfully practised in the treatment of this disease, is a modification of the method introduced by Janet of Paris. Genito-urinary surgeons have experimented upon and modified the application of the original idea of Felekí of Buda-Pest, to whom is due the credit of having made the discovery, which, in comparison, it is not putting it too strong to say, is the only safe and sure remedy.

In acute cases, Janet carries out a series of fourteen irrigations, twice a day the first few days, then only once a day, then stops and examines for gonococci. If these are still present, another series of twelve irrigations is instituted, when he makes further examination for the germ. In irrigating he begins with a warm solution of permanganate, of a strength of 1-4000, and gradually increases to 1-1000, and even 1-500 for anterior urethra. After forty-eight hours, or at the fifth irrigation, he forces the fluid into the posterior urethra by hydrostatic pressure, using the first half of the fluid in the irrigator for the anterior urethra, the remainder for the posterior.

The principle in the treatment of this disease is by irrigation without irritation. I have found the average urethra will not stand a strength above 1-4000 without producing too much irritation. I keep on hand a stock solution of the permanganate, of which two drams contain $3\frac{1}{2}$ grains: this, added to a quart of water, equals about 1-4000. If the streptococcus is found in the discharge, 1-20,000 bichlorid is added to the permanganate. I irrigate twice a day, at first, then once a day, according to the demands of the case, beginning with a temperature of 110° F., and gradually increasing to 120° F., which does not injure the mucous membrane, and is hot enough to allay the inflammation as well as to kill the germs. There is

no question that heat is an important factor in the treatment of this disease. I have seen two cases of gonorrhea taken down with typhoid fever, and when they recovered from the fever they were free from their gonorrhea. Dr. Clark of this city informs me he has seen two cases of gonorrheal ophthalmia develop a malarial fever with sufficient temperature to kill the germs in the eye.

The irrigator consists of a blunt ended nozzle connected with seven feet of rubber tubing to a percolator holding a quart, which is placed about five feet above the level of the penis. In my office the patient either stands or sits on the edge of a chair, seeing that he gets into a comfortable position. Then I give him a pus-basin to hold in position with the left hand, while I either stand or sit on his right. Of course the patient always urinates before treatment is begun, and urinating into two glasses is roughly sufficiently accurate in the majority of acute cases to test the progress the patient is making. In irrigating the first thing to do is to wash off the glans, then the penis is grasped about one inch back of the meatus between third and fourth fingers (the thumb and first finger controlling the meatus), exerting gentle but firm pressure upon the urethra, while I wash out thoroughly the front inch; then I grasp it an inch farther back and wash this out, and so on as far back as possible before allowing the fluid to rush back to the cut-off muscle, and believe that in this way I avoid carrying any particles which may remain in the urethra after urination, back farther, and thus, perhaps, avoid forming a new focus of infection.

If the disease finds its way into the posterior urethra, I allow the fluid to flow into the bladder, after having thoroughly washed the anterior. Half of the solution is used in washing out the anterior urethra, and the remaining portion, one pint, for the posterior. A great many physicians find they cannot easily overcome the resistance of the cut-off muscle. I want to emphasize that this is not to be done by force, as you might infer, when I say I use hydrostatic pressure, but you gently steal your way into the bladder. When the patient gets used to having his anterior urethra thoroughly irrigated, and finds he is not hurt, he will instinctively relax, and often without his knowledge some of the fluid finds its way into the bladder. While irrigating him, if he tries to perform the act of urination or takes a deep breath, the compressor-muscle relaxes, and you enter the bladder without any violence, thus avoiding giving your patient an epididymitis, that he might otherwise not have escaped. Should you fail, you can then place the patient on his back, after thoroughly cleansing the anterior urethra, and with a large hand-syringe, holding about four ounces, fill the bladder from the meatus

without the use of a catheter, after the method suggested by Guiard of Paris.

It often happens that the entire penis becomes exceedingly edematous after an irrigation. If the patient is not forewarned of this possibility, he may grow alarmed enough to desist from treatment, although the swelling is entirely painless and harmless. It is known that permanganate is not a microbe-killer, but, it is claimed that this artificial edema, which, though it be unperceived by the patient, renders the urethral mucosa an inferior culture medium for gonococci, their nutriment thus being vitiated or entirely destroyed, their proliferation is checked.

After each irrigation, with patient on his back, either a 10 per cent. solution of argonin or a 2 per cent. solution of protargol is injected and held in the urethra for ten minutes, then the penis is bandaged so as to retain the solution until he urinates. These solutions are absolutely non-irritating, and are valuable adjuncts, as they are known to kill the *Neisser diplococcus* when brought in contact with it.

No drugs are given by the mouth, except to meet other indications, as, for instance, constipation. Alcoholics are absolutely forbidden, but there is no reason for patients to abstain from any kind of food during the treatment of this disease.

The success of the treatment depends upon the skilful application and careful attention to details; for this reason I never advocate giving the solutions to the patient to use himself. The irrigations are continued a few days after the disappearance of the gonococci, when the patient is requested to drink beer and report for examination in one week. If they are still absent, as a final test, the patient is instructed to pass the morning urine in sterilized tubes. Either a culture of this urine is made or else the eye of a guinea-pig inoculated with it. If there are gonococci in the urine, they will make their presence known. If these tests show negative results, and the seminal vesicles and prostate are normal, the patient may be advised to marry with safety.

One of the first questions you will ask me is, "How long does it take to cure a case of gonorrhea by this method?" In the first place we must decide what you mean by a cure. Ordinarily, a case is dismissed as cured when all trace of a discharge is gone; but it is known that after the discharge disappears the germs may remain, and a man may become so accustomed to his own brood of germs, that they may cease giving trouble and he be unconscious of their presence. Let them be transported to new soil, they at once affect the recipient with pristine vigor. Now, if these regenerated germs be returned to their original owner they will initiate as vicious a recurrence as though they had

never been there before. Thus, too, a man and wife may finally become indifferent to their own germs, but a third party may be infected by either. This third party may, in turn, reinfect husband or wife, and these again one another.

What I style a cure is, when by every test known to the bacteriologist you are unable to demonstrate the presence of the gonococcus. The length of time necessary to do this varies, ranging from one week to one year, depending upon the progress the disease has made before the patient presents himself for treatment. The most brilliant cases are those seen early, within the first twelve to thirty-six hours. While you can cure a case in the least possible time by this method, if properly applied, it is not so much a question of time, it seems to me, as it is, how well you can do it. If you carry out this treatment properly, your patient scarcely knows he has a gonorrhea; the discharge disappears in a few days; he never complains of ardor urinæ or chordee; seldom if ever develops an epididymitis or seminal vesiculitis, and is rarely followed by stricture.

In substantiation of the position I have taken, and for further proof of the efficacy of this method of treatment, permit me to read a short extract from a personal letter of recent date from Dr. Swinburne of New York, who is recognized both as an able writer and successful practitioner in genito-urinary diseases. This was written in answer to an inquiry for his opinion on certain matters and not for publication; but having been associated with Dr. Swinburne for two years, I have taken the liberty to give publicity to his views, which have always proven valuable to me and may be of interest to others.

He says, "The alkaline treatment I do use once in a while, very seldom in private practice, because the patient will come often enough to get the benefit of the hot permanganate irrigations, with one or two per cent. protargol afterwards, to kill any gonococci left near the surface. The discharge becomes so slight, that a patient suffering with his first attack, if he comes early, never experiences those inconveniences, ardor urinæ, chordee, painful erections, etc., which accompany acute gonorrhea; and old staggers who have had several attacks will accept no other treatment.

"The alkaline diuretics, well diluted, do not upset the stomach if given with care, and are sometimes of benefit. The balsams diminish the discharge, but they upset the stomach to such an extent that in cases that have come to me from other physicians and clinics, I have very frequently, as you have seen while here, been obliged to treat them for dyspepsia and gastritis. The only reason that the balsams, alkalies, and astringents apparently cure is, because carefully treated

hygienically gonorrhea is a self-limited disease, and a certain proportion of cases (not well made out) recover completely in about two months. Some of these cases, however, though apparently recovered, will be found to harbor gonococci, which are "latent," because the urethra has become immune to its own gonococci. It has been my experience, however, that second and third attacks and multiple attacks treated by these measures, tend to become chronic, as do a large percentage of first attacks. I have further found (before I began the Janet method) that gonorrheas treated hygienically and symptomatically, without the balsams, do exactly as well as they do with the balsams. This is why I gave up the balsams and never prescribe them. Many of these cases of apparent complete recovery, with absolutely clear urine, pronounced cured by competent men, I have found with gonococci in their seminal vesicles, and they have allowed their patients to marry and infect their wives."

In conclusion permit me to emphasize the importance of patient and persistent effort in the detail work in the treatment of this disease. Let no one be deceived that because the remedy is apparently simple, that success is therefore certain.

SOME NOTES ON SYPHILIS.

BY C. T. PEARCE, M.D.,

Clinical Lecturer on Dermatology and Syphilography, Cincinnati College of Medicine and Surgery.

A Whole Family Inoculated with Syphilis.—Mrs. L., of Hamilton, O., with her two children, a daughter aged fifteen and a baby aged two years, were referred to me for diagnosis.

Seven years ago Mrs. L. developed a sore, which was diagnosed as purely a local condition by her physician. Later, there was sore throat and slight alopecia, but no eruption. Two years ago the daughter became infected through using her mother's syringe. About the same time a son, nine years old, had a very persistent fever-blister, which lasted some time, and was followed by a sore throat and a slight eruption. The baby, two years old, has had snuffles since its birth, and has always been sickly. Her husband admits having had the disease.

Mrs. L., on examination, has mucous patches on both tonsils, the tonsils being more or less destroyed by the disease. The tongue is badly scarred. She says that both throat and tongue have often been very sore, and that she has used gargles, and touched the sores on her tongue with caustic. The nose is free from the disease. The hair is thin, and there are several ugly-looking ulcers on the scalp, which she irritates by scratching. Vaginal examination shows active patches in vulva and labia. The body shows no signs of present or past eruption. Her general health is very bad, and she is anemic. She has taken no internal treatment for the disease.

Clara L., daughter, aged fifteen years. Two years ago this child developed a sore, which her mother said came from using her syringe. She is suffering from marked atresia vaginalis, which is probably syphilitic. The nose shows effects of the disease, the turbinate area being inflamed, and throat has given her much trouble. The tonsils are enlarged, and have patches on them. The tongue has been very sore at times. The body shows no signs of present or past eruption, although her mother says she had some eruption at the time when the initial lesion developed. An operation was performed by her home physician for the atresia, but it has not been of any benefit. Other than this she has received no treatment.

Baby L., aged two years. Has never been strong or healthy. Has

had snuffles since its birth. Its skin is drawn tightly, and the child has the characteristic senile facies of the hereditaryluetie.

A Case of Malignant Syphilis, Followed by Death.—Jno. M., a hard drinker and man of bad habits, cigar dealer, aged forty-six, developed a hard chancre upon the left scrotum, while suffering from a double pneumonia. Almost coincident with the development of the lesion the secondary eruption appeared, rapidly assuming a pustular character. A number of ulcers rapidly formed, and treatment in the form of inunction combined with iodid seemed to have no effect on the disease. The bones of the nose, the soft palate, and a portion of the tongue were destroyed in rapid succession. The condition progressed for the worse continually, and in six months the patient died from septicæmia, presumably, a systemic infection due to absorption from the numerous ulcerations. The fatal outcome was doubtless hastened by the familiar cachexia occurring in these instances of malignant disease. The man's tissues were too much enfeebled by his long abuse of them to present any serious resistance to the poisons of syphilis.

The case is particularly interesting in one respect. It is well known that intercurrent infectious diseases, erysipelas, typhoid, have a distinctly modifying influence upon the development of syphilitic efflorescences, early or late, now and then preventing their appearance. Here, on the contrary, not only did the disease pursue its usual course, but developed an unwonted malignancy. The fact is in consonance with the conditions present, resisting power being lessened to such an extent that not even the toxins of the pneumonia had any antagonistic influence upon the later infection.

Chancre of the Lip.—Kate M., aged twenty-one, came to see me on account of a very sore lip. It began as a fever blister, she said, but had resisted the ordinary remedies. It was situated on lower left lip, and was unquestionably a hard chancre. The sore was indurated, and there was enlargement of both submaxillary and sublingual glands. The diagnosis was indignantly rejected by both the young woman and her parents. She fell into the hands of a quack cancer specialist, who pronounced it epithelioma, and removed the sore and a portion of the lower lip with cancer paste. The girl is disfigured for life, and a plastic operation will be necessary to restore as much of the lip as possible. Shortly after the ulcer was removed she developed a marked syphilis, both macular, papular, and pustular. Save for slight sore throat the case has been free from complications since.

Mary M., colored, aged twenty-eight, came to me for a very sore lip. Her husband had a sore throat, which I examined afterward, and found to be syphilitic. The sore was indurated, and there was enlarge-

ment of the glands. Other than a sore throat there were no secondary symptoms. Under treatment there has been no return of outbreaks of any kind.

Syphilis of Liver.—H. L. M., rubber-stamp maker, contracted syphilis six years ago. He came to see me at that time suffering from an extensive papulo-pustular syphilide. The disease responded rapidly to treatment and despite my warning he undertook to treat himself. In March, 1899, he called to see me again. The bones in his nose had been entirely destroyed. He had been treated by advertising specialists for catarrh, and they had removed a quantity of bone and applied a local treatment, but had failed to recognize the cause of the trouble, or, at least, to treat it.

Unlike the cases of syphilis of liver reported, the ascites was one of the marked symptoms of this case. The normal measurement of the abdomen had been thirty-six inches, and it had increased to forty-four, the swelling had extended upward sufficiently to cause dyspnea. The feet and legs, above the ankles, were also swollen. The liver was enlarged, its borders roughened, and portions of the surface lengthened and painful on pressure. At no time was there a pronounced icterus, rather the waxy color common to cirrhosis.

With the use of purges the ascites remained stationary, and it was not necessary to tap him. Large doses of saturated solution of iodide of potassium (he took as much as 300 grains a day) restored his condition to normal. To date there has been no return of the trouble, and he is attending regularly to his business.

Book Reviews.

International Atlas of Rare Skin Diseases Part XIV. Hamburg: Leopold Voss, 1899

A long interval has elapsed since the last issue of the Atlas appeared, and its friends and debtors among whom are listed all the men who can even spell the word, dermatology, were beginning to fear that its publication had been suspended. The enterprise is absolutely indispensable and it is a shame that men who quote and use it freely do not give it financial support. Its position is unique—no journal could live and publish such illustrations. The price is \$3.00 for a single part, \$2.50 in subscription, surely a modest sum considering the character of the work and the infrequent appearance.

Plate XI.I. illustrates admirably a case reported by Thibierge of *Juvenile Family Xanthoma*. Two instances occurred in the same family beginning in early youth. Nodes and plaques of reddish violet color or of the familiar yellow tint appeared on the posterior surface of both legs, on the knees, feet, arms, thighs, and hands. In the older case the patches attained large size and projected 1 cm. above the skin surface. Darier made a histological examination with this result: Like xanthoma of the lids it consists of a perivascular new formation. The infiltration has its usual characters, composed of cells derived from connective-tissue corpuscles. There are numerous giant-cells. The subepithelial zone is free. He thinks the type unique.

Plate XI.II. shows Pollitzer's case of universal *Nevus Angiectodes Disseminatus*, exhibited here last year. The whole surface of the body almost is mottled with red and blue, the color disappearing under pressure. The color occurs in irregular macules, they in turn being marked with points of deeper color. Autographism is present in marked degree. Histologically there are: (1) dilated capillaries constituting the usual picture of nevus angiomaticus, (2) a probably congenital deficiency of elastic tissue, (3) hypertrophied hair-muscles. The second condition may be the cause of the others and account for the autographism.

Plate XI.III. has five figures showing a case of *Lichen Annularis Universalis* reported by Unna, a similar condition on the penis and in the mouth by Heuss and Dühring's case of *Dermatitis Vesico-Bullosa et Gangrenosa Mutilans Manuum*, a descriptive title which leaves little or nothing to be said in the report. Unna's case is summed up as follows: Following an original patch of lichen, existing for six months on the leg, there developed rapidly a universal eruption of papules which slowly subsided and whose characters are: (1) rapid peripheral development of papules, (2) simultaneous flattening in the center, (3) excentric progression of a thin, projecting, sharp border; (4) simultaneous pigmentation of the center. The annular shape is not accidental; it is constant. Heuss' case is much the same, occurring as well in the locations pictured. Dühring's case was a young hysterical woman whose dermatitis began after slight injury. It resulted in practical destruction of one hand. Its most remarkable feature is great improvement with rest-cure.

Something should be done about the English of the translations. It is distressing—involving, of evident German construction, the sense often obscure and, worst of all, mistranslated. Words are misspelled (e.g., chlorion, for corium) and mis-printed (doubts for doubt). Altogether, this English is fearfully and wonderfully made—in Germany—and we respectfully recommend it to the care and attention of Messrs. Morris and Duhring who, an they would, might easily prevent such egregious blunders.

J. C. J.

Diseases of the Skin. FRANZ MRAČEK. Saunders' Hand Atlases. Philadelphia. W. B. Saunders, 1899.

This volume is the first of these atlases to fall into our hands and it is a pleasure to give it the words of commendation it deserves. It is not intended in any sense as a dermatological treatise; there is merely text enough to prevent the student's wandering from beaten paths among the numbers of pictured forms of disease. It is hardly fair to criticize an outline of cutaneous medicine comprised in 190 small pages so we will pass to the colored plates that form the bulk of the volume. Take them as a whole and considering space limitations (none of them exceed 4 x 6 inches), there can be no hesitation in saying that they are better than those of any atlas now within reach of a needy student's limited means. Considering the number extant, this is no small meed of praise. The drawing and coloring are not only well done but the subjects are well selected. Each plate is accompanied by text sufficient regarding the case to prevent there being any misconception, as to regions, extent, etc.

The translating, which has been supervised by Stelwagon of Philadelphia, is well done generally. He has taken the pains to add notes to the author's text where the teaching is at variance with commonly accepted notions here. We cannot agree with him, however, that the plate, labelled *Tinea Tonsurans Maculosus* should be called *Pityriasis Maculata et Circinata*. It bears closest resemblance to *Pityriasis Versicolor* but the author would hardly have advanced his diagnosis without microscopic proof and he should have the benefit of the doubt.

J. C. J.

Progressive Medicine. Vols. I and II. March and June, 1899. Edited by H. A. HARE, M.D. Philadelphia and New York. Lea Bros. & Co.

These volumes differ from other Year-Books and Annuals in one essential particular which is sufficient in itself to lift them above the plane of mediocrity. Instead of presenting abstracts, without comment, of good, bad, and indifferent articles, each review is a clearly and succinctly told account of medical advance along some particular line from the view-point of a man competent to judge and distribute praise and condemnation. We should be the last to encourage the use of a personal pronoun but there is no controverting the fact that these articles are gainers by the dominance of the personal note. Illustrations are quite numerous and well done.

Volume I. contains Da Costa's chapter on the surgery of the head, neck, and chest; Blackader on diseases of children; Hektoen on pathology; Thayer on infectious diseases, etc. The gems of the lot are Hektoen's and Thayer's work—it would be difficult to choose. Not infrequently it is said that men cannot without special training keep up with modern pathology and bacteriology, but the veriest tyro has only himself to blame if he fails to take in the meaning of these pregnant sentences. The sections upon infection and tumors are particularly worthy of attention. Thayer's work on malaria is a revision to date of the

studies which have made him famous. He thrashes out again the question of the rôle of quinine and malaria in the production of hemoglobinuria, and apparently arrives at the conclusion that either may be responsible for the paroxysm.

The second volume includes surgery of the abdomen by Coley, gynecology by Clark, diseases of the blood, etc., by Stengel, ophthalmology by Jackson.

Coley's work is well and carefully done and is fully illustrated in what may be called the intestinal section. The points of chief interest in Clark's review are gonorrhea in women and the influence of castration upon the female, her menstruation, sexual function, genital and nervous systems, and therapeutic effect. The general tone, it is pleasing to note, is conservative as regards castration although the general effect is described as far from injurious. The second upon gonorrhea is well worth commendation. The fact of the havoc worked in women by the gonococcus has been driven home so that other aspects may be studied. Behrens' and Neisser's controversy, according to Clark has demonstrated two things: that treatment in women is by no means perfect and that the microscope alone is not to be depended upon in examining for gonococci. An outline of modern therapeutics is given.

Syphilis is, as usual in these reviews, scattered hither and yon through the pages. Indexing remedies the fault to some extent but a far better way in so important a subject would be to have each specialist arrange his matter and collate the whole under a syphilographer's eye.

The International Medical Annual, 1899. New York: E. B. Treat & Co.

These volumes have been several times previously brought to the notice of the readers of this Journal. It will not, however, be amiss to state again that the annual differs from others of its kind, not only in being smaller, more handy, and cheaper, but in the arrangement of subject matter. The volume, which is uniform with its predecessors, opens with an account of the newer remedies, followed by electro-therapeutics and climatology in the treatment of phthisis. Much the larger part of the volume is given over to New Treatment, an attractive title, but a misnomer, in a sense, for the collaborators introduce into their abstracts far more than treatment merely. It can readily be seen how bald treatment methods alone would be as subject matter. Condensation has been reduced to a fine art in this work, but the matter omitted is, we venture to say, not indispensable. The amount of absolute trash from which material worthy the name must be separated, has been something appalling. Colcott Fox, in Dermatology, and Hurr Fenwick, in Genito-Urinary Disease, have done their work admirably. Even a specialist who keeps well abreast of these two lines will undoubtedly find unfamiliar matter here. The volume contains sections on bacteria and legal notes. As a whole, it may be recommended unreservedly.

Notes on Surgery; Black-board Headings Used in the Lectures on Surgery. By ROBERT F. WEIR, M.D. (Edited by A. L. WOLBARST and G. A. SAXE, M.D.)

As the preface says, "the object of this work is to save the student the time and trouble of copying the black-board tables given during the lectures, and thus enable him to pay closer attention, to take better notes, and to do more systematic reading."

The work covers the classification of general and regional surgery. The regional surgery covers the mammary gland, the genito-urinary organs, the head, the thyroid gland, and the larynx, pharynx, and trachea. The general surgery covers hemorrhage, wounds, inflammation, asepsis, and antisepsis, etc., and

fractures, dislocations, diseases of bone, tissues, lymphatics, and blood-vessels and tumors.

The work cannot help but be of great use to the student and also to the teacher of surgical subjects. Of course, as the title implies, it is merely the headings and subdivisions and classifications; in other words, the skeleton of surgery.

BOOKS RECEIVED.

Sexual Instinct. JAMES FOSTER SCOTT. New York: E. B. Treat & Co., 1899.

Newer Remedies. VIRGIL COBLENTZ. Third Edition. P. Blakiston's Son & Co., Philadelphia, 1899.

Merck's 1899 Manual. Merck & Co., New York.

Society Transactions.

NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SEVENTY-SIXTH REGULAR MEETING, HELD ON TUESDAY,
FEBRUARY 28, 1899.

DR. G. H. FOX, *in the Chair.*

A Case of Multiple Keratosis of the Palms and Soles.—Presented by
DR. H. G. PIFFARD.

The patient was a young man, 7 years old, with a multiple keratosis involving the palms of the hands and soles of the feet, which had existed as long as the patient could remember. The condition, Dr. Piffard said, had improved under proper treatment, but if left alone the lesions soon reappear in such numbers that the surface of the palms and soles become roughened almost like a nutmeg-grater.

DR. H. G. KLOTZ said he had seen one case greatly improve under the internal use of pilocarpin and the application of a ten-per-cent. salicylic-acid soap plaster.

DR. S. SHERWELL said that last summer at the meeting of the American Dermatological Association he showed two cases which improved under the use of salicylic acid and slightly mercurialized applications.

DR. G. H. FOX said he had seen one case—much worse than the one shown by Dr. Piffard—where the skin had apparently been rendered entirely normal by the application of a 20-per-cent. salicylic-acid plaster.

DR. PIFFARD said that these cases of keratosis usually improve under the use of salicylic acid, but he had never seen one permanently cured. The only follicles in the soles of the foot are the sudoriparous, and whether these lesions take their origin in them or not can only be determined by a microscopic examination. Dr. Piffard said his own theory was that the disease was due to a congenital deformity (intra-uterine), in the sense that the French writers used it. It probably belongs to the same category as ichthyosis. In the case under discussion, when no treatment is employed, the palms and soles soon become much roughened. The

remedy he had used was iodine dissolved in oil, which makes the iodine less irritating than when dissolved in alcohol. Probably no permanent cure could be effected by anything short of a surgical operation, and that would not be worth while.

A Case of Anaesthetic Leprosy.—Presented by DR. GEORGE T. JACKSON, through the courtesy of Dr. W. B. JAMES.

J. D., male; aged 22 years; single; a native of the United States. Father born in Dublin, Ireland. Mother born in England. Grandparents on both sides of Irish descent. He does not recollect of ever hearing of any skin trouble in any member of the family. Mother and brothers still living and well.

Denies all previous illness except occasional cold. Periodical drinker and has indulged freely in sexual excesses, both with Indian and American women. Has never contracted venereal disease that he knows of. Up to the age of 13 years he lived in Butte, Montana. In 1891 he left home and went to Devil's Hole, Wyoming, where he held sexual connection with Indian squaws. Remained there until October of same year, when he went West as far as San Francisco. In December, 1891, he noticed for the first time a small red spot on dorsal region of back, his attention being called to it by an accident which gave rise to pain in that region. This spot gradually enlarged, spreading peripherally, never painful or very itching, though at times he thinks it itched mildly, and says this was always relieved after a warm bath. It has now lasted 8 years, spreading, he thinks, sometimes more rapidly than at others. He thinks that at times he has been very sensitive to touch along the spinal column in dorsal and lumbar regions, but not on either side of spine. At no time has he been aware of any anesthesia.

In March, 1892, he noticed for first time some enlargement and stiffness of distal phalangeal joint of middle finger of right hand. During succeeding 4 years all the fingers of right hand became somewhat deformed and contracted and says hand was more or less discolored. For 2 years past, on thighs he has noticed the development of patches, which seem to spread peripherally similar to the one on the back. The skin on legs has never been quite clear, being always more or less covered with small pimples.

He has been outside of the United States, in Canada and Alaska, but skin lesions had existed about 2 years *before* he left the United States.

The right hand is bluish-red in color and the fingers are permanently flexed on palm. There is marked atrophy of the muscles between thumb and first finger. There are ulcerations over the knuckles of the hand. The left hand is of the same color as the right, but otherwise normal except a few ulcerations over knuckles and a single ulceration in the palm. There is one large irregularly shaped ring on back reaching from side to side, and from just below shoulder blades to just above buttocks. The margin is about $\frac{3}{4}$ inch wide, of brown color and markedly scaly. There is a brown patch on right side of abdomen, has rings with scaly borders on back of left thigh, and one brown patch on right thigh. Mucous membranes unaffected. Small areas of anesthesia in the patches. Ulnar nerve of right side smaller than that of left side.

Dr. C. W. ALLEN said that on one account, he was glad to see these cases of American leprosy now and again brought to the attention of the profession as it might lead to the adoption of some measure which would prevent the disease from being acquired in this country. Since he advocated protective measures a number of years ago, a number of instances of the disease acquired in this coun-

try had been published. He still believed that proper action would keep the United States practically leper-free.

DR. P. A. MORROW said the chief point of interest in connection with the case shown by Dr. Jackson was that the disease had developed in this country, apparently without any history of known contact with lepers in Mexico, where the disease is more or less endemic. The patient states that he has been in Mexico, but only subsequent to the development of his disease. Clinically, the case was interesting from the remarkable development of the patch on the back, and from the fact that the paralysis and tendinous contraction of the fingers was a symmetrical, being confined to one hand. The exemption of the face—even the eyelashes being preserved in all their integrity—was also unusual. In the left arm the ulnar nerve is enlarged, while in the right arm it is apparently degenerated and atrophied; as the disease advances, the degeneration of the nerve may progress to such a degree that a mere vestige of it remains in the shape of a filamentous cord, while in the early initiative stage it is enlarged from interstitial and parenchymatous inflammation.

DR. MORROW said that in a case from Honolulu, which he saw many years ago, the asymmetrical contractures of the tendons of the fingers of the right hand were even more marked than in the case under discussion. In that instance there was also a paralysis of the extensor muscles of the right foot which are the flexors of the toes. In the majority of cases, however, the disease pursues a certain symmetrical course.

The antecedents of these patients should be carefully looked into. At the previous meeting, Dr. Morrow said, he showed a patient suffering from leprosy, who has lived in this city for the past eighteen years, although during that time he had made several trips to Calcutta and Bermuda, where leprosy is endemic. His father died from some skin disease which, from his description, the speaker thought was probably leprosy; also his brother.

DR. JACKSON, in reply to Dr. Morrow, said that this patient's father was born in Ireland, and his mother in England. There was no family history of leprosy.

DR. MORROW said that these cases of indigenous leprosy were appearing now with greater frequency than they did ten or fifteen years ago. The speaker said he had some suspicion that the patient, whom he had presented at the previous meeting, had infected his wife, but the signs thus far presented were presumptive rather than positive.

DR. E. B. BRONSON said he would like to get an expression of opinion as to the number of cases of leprosy which apparently originated sporadically in this section of the country. Personally, he knew of but one such case. The patient was a man, residing in Hoboken, New Jersey, who had lived in this country for thirty or forty years. He was born in the interior of Germany (Cassel), where the disease had never been known.

DR. MORROW said that one of the Norwegian lepers, who had settled in Minnesota, was said not to have developed the disease until thirty years after coming to this country.

DR. FOX said that he also was struck by the fact that in the case shown by Dr. Jackson, the face had remained entirely unaffected, and the breathing through the nose seemed normal. In regard to the fear that the disease might spread in this country, the speaker said that the very fact that sporadic cases were of such exceptional occurrence was very good proof that there was no danger whatever of the disease spreading throughout the United States, excepting, perhaps, in Louisiana, and in districts where leprosy is as liable to be endemic as in Mexico.

and other countries. In New York and vicinity it seems very unlikely for a man to contract leprosy. With lepers constantly in the community not a single case has ever been reported of infection in this city, although, of course, such a thing might be possible. The speaker said he had under his care at present a case of leprosy, mild in character, whose wife had never shown any symptoms of the disease. The patient has improved during the past five years. Dr. Fox said he believed thoroughly in the curability of leprosy. In fact the disease tends to get well in this climate. Under good treatment, cleanliness and proper hygienic conditions the disease tends to run its course, although in many cases it may terminate fatally. Chaulmoogra oil has a decidedly beneficial effect in some cases.

DR. SHERWELL said that in one fatal case of primary anesthetic and afterwards general leprosy which had been under his observation, death had resulted from a general marasmic condition. That patient lived at home with a rather large family, with Dr. Sherwell's consent, none of whom have ever shown any symptoms of the disease. In reply to a question, Dr. Sherwell said that the three Brooklyn lepers who had been presented at a meeting of the Society some years ago had all since died.

DR. MORROW said that while chaulmoogra oil seemed to be beneficial in some cases of leprosy, the weight of testimony in countries where it had been most experimented with went to show that it was of very little value. Climate and improved conditions of living were certainly superior to chaulmoogra oil as curative factors. Dr. Morrow said he had recently tried a vegetable extract, the name of which he did not know, which had been sent to him at the instance of Dr. Semelleker of Mexico. In one case in which he had used it the patient is apparently much improved by the remedy; according to his own statement he could walk with less weariness, there was less epistaxis and crusting and his sense of touch had improved. Dr. Morrow said he had very recently received a letter from Mr. Dutton, at Molokai, who stated that the assistant superintendent of the leper settlement, who had been affected with leprosy for many years, the disease having advanced so far that he was almost incapacitated for the discharge of his duties, had almost entirely recovered under the use of Hoang-nan.

A Case of Malformation of the Finger-Nails with Eczema of the Fingers.

—Presented by DR. KLOTZ.

A boy, 3 years of age. Dr. Klotz stated that he presented the case principally because its history seemed to throw some light on the origin of some eczemas of the nails and fingers. The boy's mother reports that last December she noticed a blister filled with pus at the base of the nail of the left forefinger. Owing to her confinement she could not pay much attention to the child, but before she left her bed in January she noticed that a number of other finger-nails had become affected in a similar manner. Soon afterwards the tips of the fingers became red, covered with various small vesicles, which opened, and then the skin showed thin scales or crusts. Later on patches of a similar character began to appear on the forearm, the legs, and since about two weeks, on the face. The nails of most of the fingers on both hands show a sharply defined depression at their base, redness, swelling, and abrupt ending of the soft parts around the nail without the usual flat processes of the horny epidermis overlapping the nail substance. The body of the nail is mostly smooth and well-shaped except that of the left fourth finger, on which the process started. There the entire nail has lost its smooth, level surface and is divided up into a number of small prominences. It can be safely concluded that if the eczema of the fingers will be allowed to

continue much longer, the nails themselves will be more prominently affected and will apparently take part in the eczema.

DR. ALLEN said that when, at a recent meeting of the Society, he had shown a case of this character, one of the members took exception to the term "eczema of the nails." Since then, the speaker said, he had seen a case in which an eczema of long duration, in a young child, was limited to one hand; all of the nails of that hand were altered at the matrix, and, commencing about the middle, the nails curl upwards. They are not thickened and filled in, as in psoriasis, but simply grow in an upward direction, almost at right angles to the plane of the nail.

DR. MORROW said the nails in the case shown by Dr. Klotz did not present the features which he was accustomed to associate with eczema of the nails. In the majority of those cases the trouble is more apparent at the free border of the nail and the lateral margins, more especially the former. The condition in Dr. Klotz's case resembled a dystrophy which might be associated with an eczematous condition of the fingers, but which was of neurotic origin. In cases where there is any interference with the nutrition of the nail, the presence of transverse furrows, as in this case, was frequently noticed. The case was certainly not a characteristic example of eczema of the nails.

DR. JOHNSTON said he agreed with Dr. Morrow. In true eczema of the nails the furrows usually run in a longitudinal rather than in a transverse direction, as in this case, and the nails are apt to be split. The speaker said he regarded both the eczema of the hands and the affection of the nails in Dr. Klotz's case as evidences of a trophoneurosis, the two conditions being coexistent rather than dependent one upon the other.

DR. FOX said that, strictly speaking, there was no such thing as eczema of the nails. In the case shown by Dr. Klotz there was simply a malnutrition of the nails resulting from the eczema of the fingers. The curling upwards of the end of the nail, without the formation of any chalk-like deposit underneath, is probably the result of the transverse furrows which may occur from onychia or malnutrition.

DR. KLOTZ, in closing the discussion, said he agreed with Drs. Morrow and Johnston that the case was not originally one of eczema of the nails. The disease began as a pyogenic infection of the matrix at the base of the nail, the eczema appearing later. If the eczematous process of the fingers were allowed to continue, the nails, as the result of impaired nutrition, would gradually develop these features which usually are described as eczema of the nails. The speaker said his object in showing the case was to demonstrate what he had maintained at one of the previous meetings of the Society that these conditions of the nails were originally the result of an infectious inflammation of the surrounding skin and other soft tissues.

Congenital General Xeroderma or Ichthyosis, of a Very Mild Degree and Complicated by Eczema of the Face.—Presented by DR. KLOTZ.

The patient was a child 3 years of age; the father was born in Austria; the mother in Eastern Prussia. Another child born to them, died at an early age; the parents are healthy. The skin over the entire body is pale, dry, and rough, but slightly thickened, covered with fine, not very loosely adherent, bran-like scales. There is no indication of a secretion of grease or sweat; the extensor and flexor surfaces do not show any marked difference, keratosis pilaris is not very conspicuous on any part of the body. The scaly and rough condition of the

skin extends partly to the scalp, but the hair and nails are well developed. This condition of the entire skin was noticed immediately after birth and has not changed much, although the child was treated for some time in a hospital.

The face showed much more marked changes when first seen about one week ago: Here the skin was thin, glistening, and tightly drawn with superficial fissures dividing the surface in folds of different size and shape; the color is decidedly red around the ears, particularly the right one, and on the forehead there is a decidedly eczematous condition present, with infiltration, considerable desquamation, and partly moist surfaces. These parts itch considerably, while on the general surface there is but little itching. Inunctions with lanolin and vaselin, equal parts, with one-per-cent. salicylic acid have greatly improved the condition within a short time.

A Case of Epithelioma of the Face.—Presented by DR. C. W. ALLEN.

The patient was a woman of 38 years, sent to him from a neighboring city, who presented two superficial lesions of epithelioma upon the face. One on the forehead, nearly the size of a quarter-dollar, the other smaller, upon the upper lip on the site of a cicatrix. The lip lesion originally began as a small "pimple," which became irritated eight years ago. That upon the forehead originated in a burn from curling tongs three years ago. Both lesions now present clinical signs of epitheliomatous new growth. The family history teaches that a sister died of cancer of the breast, two years and six months after removal, recurrence having taken place. A brother of the patient's father died of cancer of the face. Patient has been operated upon with the knife, with caustics, and treated by various applications. Recurrence has always taken place at the original site. Dr. Allen said he now proposed to operate by electrolysis, with which method he had recently had seemingly favorable results.

DR. H. H. WHITEHOUSE said that he had no experience in the treatment of epithelioma by electrolysis. He preferred the use of a sharp spoon followed by the Paquelin cauterizer, which is usually effective and gives, at the same time, a good cosmetic result.

DR. SHERWELL said he preferred the use of the curette, followed by the application of acid nitrate of mercury. The speaker said he recently had a case of this character in which he employed a twenty-per-cent. solution of formaldehyd; the lesion, which was on the forehead, was painted with this solution every third day. Thus far the treatment has produced great improvement.

DR. A. R. ROBINSON said that in a case of epithelioma of the face, like the one shown by Dr. Allen, the use of electrolysis was inferior to other methods of treatment. The lesion on the forehead was very superficial in character, and, from the history, very slow in its growth. Undoubtedly, changes have occurred in the tissues surrounding the lesion which cannot yet be made out with the naked eye and on this account recurrences were apt to occur there if treatment was limited to the naked-eye extent of the disease. Dr. Robinson said that in the treatment of this case he would use arsenious-acid paste, applying it not only to the lesion itself, but also beyond the apparent margin of the lesion after slight curetting of say one-half inch beyond the lesion, so that all the diseased tissue could be eradicated by the selective action of the remedy. He was satisfied if this method was given a proper trial, no recurrence would take place. He did not think the knife should ever be used in such cases.

DR. PIERARD said he agreed with Dr. Robinson regarding the selective action of arsenic in a case of this kind. One objection to the use of the drug, however,

is the severe pain it causes. The speaker said that in his opinion, the best, simplest, and most thorough method of treatment in a case like the one shown by Dr. Allen, was to cut out the lesion, giving it a wide margin to guard against a recurrence, and then, if necessary, close the gap with skin-grafts or a plastic operation. He was certainly opposed to the use of electrolysis in such a case.

Dr. ROBINSON said that in making the arsenical paste, he adds forty grains of cocain to the ounce of water. The patients very seldom complain of pain after the use of this preparation.

Dr. GEORGE T. JACKSON said that in one case where he employed it, the patient did not complain of pain until after the arsenical paste had been removed. Then he began to complain of very serious pain, which persisted for hours.

Dr. ROBINSON said that one objection to a cutting operation in these cases was the deformity it produced and the frequency of reappearance of the disease as compared with the use of proper caustics applied in a scientific manner according to the peculiarities of each individual case.

Dr. FOX said he agreed with Dr. Robinson that in a case like the one under discussion, the use of the knife was both unnecessary and undesirable. On the other hand, the arsenious-acid paste, even when cocain is added, may give rise to much pain. With the curette, followed by the use of the dental burr or the application of nitrate of mercury, such a lesion can be thoroughly removed and a recurrence is very unlikely.

Dr. MORROW suggested the use of an effective caustic preparation. Personally, he preferred the chlorid of zinc.

Dr. E. B. BRONSON referred to a very extensive case of epithelioma which had recently come under his observation at the New York Polyclinic. The patient was an old man with an epithelioma occupying almost the entire top of the scalp. To this, Mar-den's paste was applied several times and with excellent results. The pain the application gave rise to was insignificant. At present the surface has everywhere cicatrized and nowhere is there any sign of the disease.

Dr. ALLEN, in closing, said that in this case the lesion had existed for eight years, and had recurred *in situ* after a very thorough cutting operation. It should also be borne in mind that the lesion on the forehead resulted originally from local irritation, and we constantly see recurrences due to local irritation by caustics or other methods of treatment. The disease in this case, as mentioned by Dr. Robinson, undoubtedly extends beyond the margin which can be seen with the naked eye, and for that reason, Dr. Allen said, he intended to use electrolysis, because the effect of that treatment, attacking, as it does, the blood-vessels and lymphatics, extends further beyond the margin of the lesion than we would be likely to go with the knife or caustic. The speaker said he had recently resorted to electrolysis in a case of epithelioma under the eye, in which, two years ago, he had used arsenious paste with apparent success. A few months ago a recurrence was noticed. By electrolysis a very satisfactory result was obtained. In regard to the elective or selective qualities of arsenic, Dr. Allen said he recently had a good illustration of this in a case of epithelioma of the palm in an old woman. The lesion had existed for a long time, and was about the size of a ten-cent piece, but extended deeply. He applied the caustic twice, and it resulted in a deep excavation, involving the entire fleshy part of the palm, but only so far as the growth extended. The wound healed well, leaving a good, soft cicatrix. In conclusion, Dr. Allen said he thought electrolysis was advisable in only few of these cases.

A Case of Vitiligo and Morphea.—Presented by DR. G. H. FOX.

The patient was a boy, with patches of vitiligo and morphea on the chest, back, and thighs, which had first made their appearance about eighteen months ago. The two affections were apparently entirely independently of each other, although some of the patches of morphea seemed to be situated on the areas of vitiligo. In addition to the above skin affections, the boy had a large, red, scar-like patch, verrucous in character, situated on the inner surface of the left thigh. The patient stated that this lesion had existed since early infancy, and had remained unchanged in size and appearance.

DR. JOHNSTON regarded the patch on the thigh as a *nævus unius lateris*. It was similar in appearance to two cases which Dr. Morrow had presented to the Society, and afterwards reported in the *New York Medical Journal*. There was evidently a derangement, in this case, of the cutaneous trophic nerves, and degenerative changes in those nerves could probably be demonstrated.

DR. WHITEHOUSE, who saw the case over a year ago, said that then the patch on the thigh was even more characteristic of a *nævus unius lateris* than at the present time. It was distinctly striated in appearance, like *lichen moniliformis*, perfectly dry, and presented every characteristic of a *nævus* of that kind. The scleroderma was also more marked than at present. Dr. Whitehouse said he was inclined to agree with Dr. Johnston that the trouble might be due to a trophic nerve disturbance.

DR. MORROW said that in one case of *nævus*, where the patient had been very solicitous to have something done he had used the thermo-cautery, burning out a number of the lesions. There was an apparent improvement, but it was only temporary. The speaker said that in some instances, lesions of this character disappeared spontaneously. One such case, where the *nævus* was situated on the hand and forearm and upper arm, under his observation, the lesions had entirely disappeared from the upper arm.

DR. BRONSON said he was not entirely convinced that the striated character of the lesion on the thigh was due to nerve influence. The patch was evidently very itchy, and the linear outlines were, perhaps, due to scratching. The outlines of the patch itself did not conform to the nerve-distribution of the skin.

DR. MORROW said that in only forty per cent. of cases of *nævus unius lateris* did the outline of the lesion follow the course of any particular nerve.

DR. FOX said he was inclined to agree with those who had discussed the case that the lesion on the thigh was a *papilloma lineare*—a term which he thought preferable to that of *nævus unius lateris*. The lesion was very itchy, and some months ago the boy scratched it until it was perfectly raw.

A Case of Sclerodactylie.—Presented by DR. KLOTZ.

A woman, thirty-four years of age, born in New York, married about twelve years, the mother of four children, both her parents being alive and free from disease. The early history of the patient does not present any particular features, except that twice, about her fourteenth year, she has had, on and off, eruptions of a skin disease characterized by circumscribed scaly patches, which usually become worse in winter, but disappear or improve in summer. About eight years ago the distal phalanges of the fingers of both hands began to show signs of the present disease.

Dr. K. had seen the patient once in March, 1894, in his office. At that time there were present a number of more or less round patches covered with silvery scales irregularly distributed over the face, neck, hairy scalp, arms, and lower legs

(Psoriasis?). On both hands the distal phalanges of all the fingers showed a drumstick-like shortening of the tips, and were all more or less shortened, so that on some fingers there remained only a very slender margin of the nail beyond the tumula. The fingers appeared as if they had been ground off, the nails were detached by thick, horny masses from the underlying tissues, partly broken off; on some fingers it looked as if they had been sawed off. The skin of the finger-tips themselves was perfectly white in part, in part thickly covered with horny epidermis. On some places deep fissures and abrasions could be seen, which rendered the use of the hands extremely painful. Besides this great sensitiveness against mechanical results, the fingers were often spontaneously painful, and strongly affected by cold. They themselves appeared cooler to the touch than other parts of the skin. I advised covering the finger-tips with saneylated soap plaster and prescribed arsenic internally, but did not see the patient again until July, 1898, when she turned up in the German Dispensary, where she was first seen by Dr. Pollitzer. He described the finger-tips as club-shaped, covered with a very tense skin. The tips were of a bluish color, and on some places showed small ulcers, suppurating. The knuckles of the phalanges bear crusts, the nails are short, curved, thickened, and at one time or other have all been shed. There were a few "seborrhoid" scaly patches present on the scalp and back.

On the advice of Dr. G. W. Jacoby, who saw the patient at that time in the nerve department of the dispensary, she was put on thyroid tablets, which she continued to take from July 26 to January 1899. She has been under regular observation during that time. At different times within this period there have appeared superficial necroses or ulcerations on various points of the body, particularly since colder weather began to set in, which always acts unfavorably on her condition. On December 6th the knuckle of the right middle finger, on the 13th the skin under the free border of the nail of the index, on January 12th a small piece of skin over the right elbow, and on January 24th the second toe of the left foot became similarly affected, the first time that any lesion appeared on the lower extremities. Usually the epidermis became thicker, then was detached, and left only a suppurating, very sensitive surface.

About this time the face became covered with white, horny scales, more diffusely than in circumscribed patches, the general health of the patient was somewhat impaired, and she began to complain of rheumatic pains in the left arm and other parts. The thyroid treatment apparently had not had much effect, and was, therefore, given up. After a few weeks of treatment with salicylate of sodium and iodid of potassium, the patient is now taking ichthyol internally.

Although the fingers exhibit the most characteristic features of the case, and the patient does not experience any discomfort otherwise, it easily becomes apparent that her face has also been afflicted by the disease, particularly if you compare her present appearance with this photograph, a copy taken by Dr. Pollitzer of a picture taken about twelve years ago, about the time of her marriage. The skin is not immovable, but everywhere tightly drawn over the prominent parts of the face, particularly the cheeks, nose, and chin. Notice the sharp outlines of the nose, the sharp descent on both sides, and the thin, tightly closing lips, particularly, in contrast with the mouth on this photograph. Perhaps even a slight difficulty in her speech may be noticed at times. The sensitiveness of the fingers against cold and against any mechanical insult or touch, render the condition of the patient quite an aggravated one, although her general health does not suffer much. Finally, Dr. K. called attention to the similarity of some

features of this case with those of a male patient with disease of the nails and finger-tips, whom he presented to the Society on different occasions and at the meeting of the American Dermatological Association last spring.

DR. ALLEN said that within the past six months he had seen a case very similar to the one shown by Dr. Klotz. There was a thinning of the lips and the nasi, and evidences of scleroderma over the entire body. The fingers were all very short, there was scarcely any nail, and the skin of the hands and fingers was very tense.

DR. FOX referred to a case of scleroderma, which he had presented about a year ago, in which the extremities were club-shaped and the nails short.

Favus of the Scalp with Seborrheal Crusts.—Presented by DR. C. W. ALLEN.

The patient was a young girl, with lesions on the scalp, involving an area of about two-inches' diameter, which was covered with sebaceous crusts. The speaker said that, while the case was really one of favus, both spores and mycelium having been found under the microscope, yet the ordinary, yellow crusts of favus were entirely lacking, the clinical features of the case resembling a seborrhea. The child had received no treatment for a year.

DR. KLOTZ said he had not infrequently observed such an eczematous condition of the scalp following favus, sometimes in adults years after the original affection had apparently healed.

DR. ALLEN said that in this case a careful examination showed that the microscopic elements of favus still remained, but that, instead of producing the characteristic crusts of that disease, they produced a seborrheal condition.

A Case of X-Ray Dermatitis.—Presented by DR. S. LUSTGARTEN.

The patient was a young man, who, on May 4, 1898, took charge of an X-ray exhibit at the Electrical Show at Madison Square Garden. He was in the proximity of the rays for about four hours each day, his direct exposures to the rays being of brief duration, intermittent and irregular. At the end of ten days he first noticed an inflammation of the right hand and right side of the head and face. A physician applied camphor, ice, and lanolin dressings for a few days, then lead and opium-wash, all of which failed to give relief. Later, the treatment was changed to a lotion containing phenol, rose-water, etc. Ice-bags were also applied. After a few weeks the skin became necrosed, and the physician removed it from the entire dorsal surface of the hand and fingers. Then a dry dressing of aristol, bismuth subnitrate, and antifebrin was tried, with very satisfactory results, more so than applications of protonuclein and vitogen. New skin and finger-nails formed after several months' treatment. One patch, on the back of the hand, however, refused to yield to treatment, and eventually ulcerated. Applications of peroxid of hydrogen and nosophen were effective, but only temporarily. Their use was followed by a relapse, the ulcer spreading and attacking the tendon of the middle finger. The burn on the head and face was superficial in character, and disappeared in about one month. The hair fell out, but eventually returned.

When this patient recently came under Dr. Lustgarten's care, a dressing moistened with Burow's solution (1 to 9) was kept constantly applied to the lesion on the hand. Under this treatment the ulceration has partially granulated and was otherwise decidedly improved.

Dr. Lustgarten said that some time ago he showed a woman with an X-ray

dermatitis. In her case it is now two years since the lesion first appeared, and she still has a few unhealed spots. The speaker said he found that a moist dressing was far preferable in these cases to greasy applications.

DR. SHERWELL said the fact that some persons, when exposed to the X-rays, developed very severe lesions of the skin, while others, equally exposed, remained unaffected, seemed to point to a personal idiosyncrasy. In one case coming under his observation an X-ray burn seemed to have resulted fatally, the ulceration being very extensive and death occurring from exhaustion.

DR. BRONSON said that, while the X-ray burns differed from ordinary burns, they were similar to those sometimes produced, to a limited extent, by electrolysis, and there were other reasons for attributing them to electrical action rather than to the X-ray itself.

DR. ALLEN suggested the use of picric acid, which is very successful in ordinary burns, including those produced by chlorid of zinc. The speaker said he recently saw a case in which a very extensive burn of the back had been produced by the use of a strong solution of chlorid of zinc applied by mistake: the lesions were deep, indolent, showing very little tendency to heal, and were very painful. An application of picric acid produced an almost magical effect, instantly relieving the pain, improving the character of the lesion, and causing rapid healing. In lesions due to freezing during the recent cold weather he had also used picric acid to advantage.

DR. BRONSON said he had tried picric acid in one case of X-ray burn, with absolutely no benefit whatever, and it greatly aggravated the irritation.

DR. LUSTGARIEN said he did not think picric acid would be very serviceable in these cases, which differed entirely from ordinary burns. The latter will heal under almost any protective application, but it is not so with an X-ray burn.

A Case of Generalized Fibroma Molluscum: Tumors Disappearing Rapidly under use of Asiatic Pills.—Presented by DR. H. H. WHITEHOUSE.

The patient is a man, thirty years of age, whose general health is, and always has been good, though he was recently operated upon for a hernia. His intelligence is normal, and he has no organic affection of any kind.

The skin eruption began six years ago, and the tumors have become gradually more numerous and larger to the present time. He has been treated a great deal of the time with no effect; tumors that have been removed have reappeared in the scars. He had several hundred of the tumors, on trunk and limbs, when coming first under observation, seven years ago, some even extending onto the face. They varied in size from a pin's head to a hen's egg, some pedunculated, but the majority sessile. Microscopical examination of the tumors proved them to be typical fibromata. He began with three Asiatic pills a day, which he continued for about three months, when it was noticed that the tumors were becoming soft and shrunken, and that some of the smaller ones had disappeared, leaving only soft patches of skin. The pills were increased to four and five a day, which latter number he is now taking. He has at present only about one-half the number of tumors he presented seven months ago; they began to disappear first from the upper part of the chest.

DR. SHERWELL said the action of arsenic on the tumors in the case shown by Dr. Whitehouse corroborated his belief in the solvent power of that drug upon tumors which contain much newly organized fibrous tissue. It recalled to his mind a case of multiple sarcomata of the skin, where the arsenic seemed to exert a magical effect. He believed a sarcoma, in short, to be, histologically, a

new growth of "non-viable" fibrous elements. The case referred to will be found reported in the *American Journal of the Medical Sciences* for October, 1892.

DR. RORTKSON said he was not quite ready to admit that the disappearance of the tumors in Dr. Whitehouse's case was due to the use of arsenic, although it may be so. If the etiology of these growths, as now understood, is correct, then they must be regarded as simple tumors, and not as infective growths, and in that case it is difficult to understand how they can in any way be specially affected by arsenic. The speaker suggested that the drug be withheld for a time by Dr. Whitehouse, and the course of the tumors be observed.

DR. WHITEHOUSE, in closing, said he also regarded it as strange that arsenic should be responsible for the rapid disappearance of these growths. He promised to report on the case again later on.

Selections.

SYPHILIS.

Syphilis Treated by Cyanid of Mercury.—CHOPING (*The Lancet*, Feb. 18, 1890) reports eighty-four cases of syphilis treated by the intravenous injection of cyanid of mercury. The part of the arm where the injection is to be made is rendered aseptic by washing and swabbing over with a solution of carbolic acid. The veins of the forearm or the bend of the elbow are chosen as being the most prominent and easy to get at. A rubber tourniquet is applied to the upper part of the arm to make the veins stand out, and a fine needle of a hypodermic syringe containing 20 minims of a 1-per-cent. solution of cyanid of mercury is introduced into the vein chosen, in the direction of the blood stream. The tourniquet is then removed, the fluid is injected into the vein, the needle is withdrawn, and an aseptic swab is applied with a small amount of pressure to the puncture for a few minutes. The injection is made every morning unless the patient complains of diarrhea, which rarely happens, or unless there is some other contraindication. The injection is quite painless unless it has missed the vein, when it causes acute pain and swelling. The pain and swelling can usually be reduced in a day or two by means of hot fomentations. In a small percentage of cases bruising of the tissues surrounding the vein occurs, due to slight extravasation of blood around the puncture, and can often be overcome by using a finer needle.

The advantages of this treatment are: (1) as the injection is made daily the patient is under constant observation. (2) The exact quantity of mercury introduced into the system is known. This is not the case when pills or inunctions are used. (3) As the drug is administered by intravenous injection the patient is rapidly brought under its influence (with greater rapidity than when administered by the mouth or skin), a marked advantage in cases where it is necessary to produce the full effect of the drug as speedily as possible, such as iritis, otorrhea, bad ulcerative laryngitis, etc. (4) The rapidity with which serious lesions and visible evidences of the disease clear up. (5) The treatment by intravenous injection is especially useful in cases which have not responded to the ordinary methods of treatment, such as pills, inunctions, etc.

In three cases polyuria occurred for a few days. In two cases diarrhea occurred. In two cases salivation occurred, which was controlled by astringent washes and mouth hygiene. In three cases there was difficulty in making the veins sufficiently prominent. Nine of the cases are not classified, as the patients refused to be thus treated, or were discharged for improper conduct. The average stay in the hospital per case was 23.2 days. All the cases, with but one exception, showed very marked and rapid improvement. In the worst cases other adjuvants were used, such as cod-liver oil, iron, and a correct diet, and in all cases special attention was paid to the general health of the patient.—*Medical Standard*.

Ignored Syphilis.—PROFESSOR FOURNIER (*J. de Méd. et Chir. P.*) calls attention to the following fact, which is of frequent occurrence in both private and hospital practice: A patient has a gumma, the syphilitic nature of which is not at all doubtful, but nevertheless he positively denies syphilitic contamination. Antisyphilitic treatment is instituted, and the lesion disappears with a significant rapidity. This proves that there are a large number of people who have syphilis without knowing it. M. Fournier in 4142 cases of syphilis occurring in his practice, found that in 193 cases of tertiary syphilis, the patients denied that they had been or were infected. The claim that there is dissimulation on the part of the patient or mistaken diagnosis on the part of the physician, though true in rare instances, does not invalidate Dr. Fournier's statement. The cases of ignored syphilis are to be found (a) in the fact that women, knowing much less about syphilis than men, are more frequently infected without knowing it. (b) The frequency of extragenital chancres. Of 100 chancres from 8 to 10 are extragenital. (c) Infantile, wet-nurse, and professional contaminations are often erroneously interpreted. Midwives and physicians are often infected, and do not know it. Dr. Fournier has treated for tertiary syphilis, six physicians in whom the initial lesion had not been noticed. (d) Many cases of syphilis remain ignored, owing to the manifestations having escaped notice or having been falsely interpreted. Mucous patches about the anus have been mistaken for hemorrhoids, syphilides of the mouth and throat, for simple anginas; syphilitic cephalalgia, for migraine; osteocopic pains for rheumatism. (3) Often the woman is infected by her husband. On the first appearance of symptoms, the husband rushes to the family physician and begs of him to reveal nothing. The physician is thus unwillingly committed to a policy of silence. The wife, ignoring that she has syphilis, refuses to take treatment for it.

The conclusion to be derived from the above is, that in obscure lesions, even if the patient denies syphilitic infection, syphilis may be the cause at work. Proceeding on this hypothesis, in a large number of cases, excellent results have been obtained. In the Hôpital Saint-Louis is a cast of the leg of a patient who had come from the country with such a voluminous tumor of the leg that amputation seemed unavoidable. He positively denied syphilitic infection. Antisyphilitic treatment was instituted. The tumor completely disappeared.—*Medical Standard*.

Syphilis and the Liver. T. G. ADAMI (*Montreal Med. Jour.*, Vol. 28, page 251, 1899)

The author tries to show that, while the changes seen in the adult and infantile syphilitic livers are etologically and anatomically identical, they tend

to present differences, due, in part, to their duration, in part to the reactive powers of the hepatic parenchyma at different life-periods. Thus, the lesions of congenital syphilis (1) may lead either to granulomatous deposits in the organ or to intensified fibroid changes; (2) may be present in the form of minute multiple miliary gummata, or of larger gummata; (3) both may coexist with cutaneous disturbances of the secondary type. The same lesions are to be met with, in the adult liver, in acquired syphilis, as are recognizable in the organ affected by antenatal disease, with the addition of forms due to the element of time as (1) obsolescent gummata undergoing involution and absorption with surrounding limiting fibroid change and contracture; (2) as obsolete gummata, represented by puckering of the organ, with a relatively small amount of fibroid growth; and (3) a tumor-like outgrowth, so sharply defined and so large as to lead to the false diagnosis of malignancy.

Mercuriol—A Preparation of Metallic Mercury, by a New Method of Reducing It to Extremely Fine Particles.—ARVID BLOMQUIST, Pharmacist in Stockholm (*Arch. of Derm. and Syph.*, Vol. 48, pp. 3-15, 1899).

The usual mercurial preparations for external application labor under the disadvantages that the mercury, even if reduced to fine particles, in the preparation, has a tendency to aggregate into large masses, and thus diminish the surface of vaporization of the mercury. The author by his new method produces a preparation in which not only is mercury reduced to extremely fine particles, but does not, when used externally, aggregate. This method is based upon the fact that a very easy amalgamation can be produced by mixing mercury with aluminium or magnesium. Mercury is easily freed from them by the addition of water, when, by its vapor and air, an hydrate is formed. After careful investigations, the conclusion was reached that mercury is freed more easily when it is in amalgamation with a mixture of aluminium and magnesium. The preparation obtained—mercuriol—is a grayish, adhesive powder, containing from 40 to 80 per cent. of metallic mercury in very fine amorphous particles. When the powder is rubbed by the hand it grows darker, till it becomes entirely black—at the same time a feeling of warmth is produced. When mercuriol is exposed to warmth, air, and humidity, the aluminium and magnesium are oxydized and hydrargyrum freed. The mercury in mercuriol is easily vaporized. It is not to be used internally, as it is decomposed in presence of water, producing a large amount of hydrogen gas.

The Treatment of Syphilis with Mercuriol.—G. AHMAN. (*Arch. f. Derm. and Syph.*, Vol. 48, p. '5, 1899.)

The author used this preparation in thirty syphilitic patients, with various manifestations of disease. The results obtained were very satisfactory. Mercury was shown in the urine of every one of the thirty patients, and in some cases even slight forms of stomatitis. The mode of application was as follows: In a woollen or linen bag five grams of mercuriol were put every day for the first five to ten days of treatment, and later only every second day. The duration of treatment varied between thirty and forty days. The mercuriol penetrates the wool and is vaporized so thoroughly that it is hardly possible to scratch off any large amount of mercury from the surface of the bag. The same bag is in use for the whole period of treatment. This procedure has the advantage of being a clean method of application of mercury.

Remarks on Mercuriol-Bag Treatment (Welander) in Place of the Inunction Method.—SCHUSTER (Aix-la-Chapelle). (*Arch. f. Der. und Syph.*, Vol. 48, p. 107, 1899).

The author endeavors to decide the question whether mercury, when used endermatically, is absorbed by the skin or inhaled by the lungs, by examination of urine of three persons—two patients and the author himself. The urine of the two patients in whom mercuriol-bags were used, did not show any traces of mercury. Only in the second case slight traces of mercury were demonstrated on the thirty-first day of treatment. Schuster himself used for fourteen days and nights a mercuriol-bag, leaving the room only every second day for an hour and remaining in bed between twelve and fourteen hours. The urine proved to contain mercury, with an increasing elimination. He considers the bag method in some cases may be employed with success equal to that of inunction.

The Treatment of Syphilis with Serum of Syphilitic Patients.—A. A. VYETOROVSKI. (*Russian Arch. of Path., Clin. Med., and Bacter.*, Vol. VII., pp. 44-55, 1899).

The author gives a short account of his investigations and clinical experience in treating syphilis with serum of syphilitic patients. From the published literature on the influence of bleeding upon the organism of patients and from experiments upon animals, he comes to the conclusion that bleeding of patients with syphilis, in order to obtain serum, not only does not impair their general health, but serves as a kind of exercise upon the blood-producing organs. His own observations upon bleeding of patients with late manifestations of syphilis convinced him of the harmlessness of the procedure. He takes 1.5 grains of blood for each pound of weight.

Serum obtained from patients after the disappearance of the condylomatous manifestations of syphilis, and serum of gummatous patients administered to patients with early manifestations of syphilis increases the percentage of hemoglobin, the number of red blood-corpuscles, and the morphological metamorphosis of white blood-corpuscles, which is manifested in the diminution of the percentage of young and matured corpuscles, and in the increase of that of corpuscles past maturity. These changes take place in the blood before any corresponding changes in the external manifestations of syphilis can be noted.

Only the serum of syphilitic patients exercises such an influence upon the blood of syphilitics, while venous serum of healthy people does not influence blood of patients with syphilis. This action is entirely independent of treatment. Untreated syphilitic patients' serum has the same power.

The action of the serum is stronger when administered in the stage when the general manifestations of syphilis appear, and milder when used in the second incubation period, no matter whether serum of patients with condylomatous or gummatous manifestations, treated or untreated, is used. He gives the preference to serum when compared with mercury in their action upon the blood.

In eight cases out of sixteen treated the manifestations entirely disappeared from the use of serum alone. He cites a case where the administration of serum three weeks after the first appearance of a chancre and scleradenitis, accompanied by a diminution of hemoglobin and an increase of urea prevented the outbreak of syphilitic manifestations—three years of observation—although in three other cases, where the administration of serum took place in a later period, he could not prevent the appearance of syphilitic manifestations.

The Culture of the Syphilis Bacillus.—VAN NIESSEN (*Wiener Medic. Wochens.*, Vol. 49, v. 8, 11, 12, 13, 14, 1899).

When, several years ago, the author published his first investigation regarding the syphilis bacteria, he complained of the scarcity of material and lack of appropriate laboratory facilities. Recognizing the importance of the subject, the Royal Institute of Experimental Medicine, in St. Petersburg, Russia, offered the author the immense syphilitic material of St. Petersburg, with all the facilities for library work of the Institute, adding to it a handsome sum to cover other expenses, provided, that the work would be open to the examination of the members of the institution. The author accepted the proposition and published the results of his work under the above title. It is stated at once that in the above article the author expresses only his own views—there is no mention whether the members of the institute are agreed with them. The author claims that he not only found the syphilis bacillus, but was able to cultivate the bacillus upon various media (agar, bouillon), and to inoculate it successfully into animals. He substantiates his claim by the following five important arguments and four minor arguments:

Minor Points—(1) That the bacillus was obtained from syphilitic moist papules and blood of syphilitic patients; (2) that bacillus has not been isolated up to the present; (3) some of the forms described by him in tissues are like the elements described by Lustgarten; and (4) in some instances the differential stains proposed by Lustgarten was applicable to his bacilli. He relies chiefly upon the following points:

(1) The results of inoculation with cultures obtained from condylomata; primary sore; polyganglionic and indolent adenitis; constitutional symptoms upon the skin and mucous membranes in form of mixed eruption; icterus and a fatty degeneration of the liver; periarteritis and affections of the central nervous system due to ischemia. Four apes, one pig, one dog, one rabbit, and three guinea-pigs were inoculated. (2) The course of the disease in the inoculated animals was the same as those of syphilis in human beings; comparatively slight change in the general condition, no fever, slight local reaction, a tendency to spontaneous healing, the involvement in the process of organs which are usually affected by syphilis—skin, lymphatic, and nervous system. (3) The failure to obtain a culture reproduction of the contagium. (4) The agglutination properties; and (5) the treatment *ex juvantibus*.

It may be added that Prof. V. Petersen, who saw the eruption upon apes produced by inoculation, diagnosed it as eczema and impetigo respectively.

Inoculation of Animals with Syphilis.—C. ADRIAN, of Wolff's Clinic in Strassburg (*Arch. f. Derm. and Syph.*, Vol. 47, pp. 103-185).

The question whether syphilis is only a human disease is not yet settled. The author used for his experiments guinea-pigs, dogs, and pigs. In guinea-pigs and dogs the experiments gave negative results, while in pigs he obtained some manifestations which were clinically and microscopically like syphilitic manifestations upon human beings. The author inoculated into the abraded, cleaned skin of the abdomen of two pigs the scraped-off material of a hard chancre of a patient suffering with a maculopapular eruption. Eight weeks after inoculation an eruption similar to a maculopapular syphilide appeared upon various portions of trunks of both pigs. The papules later disappeared without

leaving scars or pigmentation. By careful research the author excluded the possibility of eruption being produced by external parasites.

Histological examination of the papules of the inoculated pigs showed a striking resemblance to the histological structure of a human syphilitic papule; in the skin of a healthy pig the author did not find any deep infiltration or aggregation of cells, such as he noticed in the papules of the inoculated animal.

Gummatous Periostitis and Otitis with Record of a Case of Perforation of the Cranial Vault.—W. S. GOITHEL (*N. Y. Med. Jour.*, Feb. 4, 1899)

The author reports an interesting case of a Russian woman, who gave no history of syphilis. The trouble in the scalp for the first time appeared twelve years ago. She did not suffer any inconvenience from the sore on the scalp, at that time, and after many months of existence a flat piece of bone came away, the ulceration healing later. She did not have any treatment at that period. A few months ago, trouble began in the scar. Ulceration began in the center and slowly spread, occupying a patch of about two inches in diameter, and situated over the two parietal bones at their posterior margins. In the center of this was a large, oval, dark-brown and greenish crust, from the edges of which pus welled out on pressure. After treatment the ulceration healed. During the whole period the patient had no discomfort.

Syphilitic Affections of the Heart and Lungs.—LEONARD WEBER (*The Post-Graduate*, XIV., p. 528, 1899).

After reviewing the latest literature of the question, the author considers the differential diagnosis of syphilis of the heart. In endo- and myocarditis from rheumatism, in alcoholic, the tobacco, the fatty, the gouty heart, syphilis may, as a rule, be excluded, though it may occasionally complicate one or the other of these forms of heart-disease. The signs of myocarditis in younger individuals, such as weak pulse, with accentuated second sound, irregular action, tachycardia, or even bradycardia, faintness, dyspnea on exertion, angina pectoris, general depression and weakness, should always arouse suspicion of syphilis, whether the patient admits a previous infection or denies it. In treating syphilis of the heart a judicious, prolonged, and repeated use of mercury in the shape of inunction or hypodermically is indicated. To rely upon iodid of potash alone in syphilitic heart-disease leads to disappointment, bringing about only a temporary improvement, which soon passes away.

GENITO-URINARY DISEASES.

Treatment of Exstrophy of the Bladder. G. NOVÉ-JOSSERAND (*Rev. Mens. d. Mal. de l'Enf.*, June, 1899) describes a case of vesical exstrophy in a boy, aged five and one-half years, treated by implantation of the ureters into the intestine. The vesical ectopia had its characteristic appearances; a tumor in the hypogastric region, the size of a mandarin orange, covered with reddened non-ulcerated mucous membrane, and showing the openings of the two ureters; complete epispadias, and a 3-centimeters' separation of the symphysis pubis; split scrotum and a right-sided inguinal hernia. Resection of the blad-

der was performed, and a piece measuring 4 square centimetres, and containing the openings of the two ureters, were alone retained and surrounded with sterilized gauze. Median laparotomy was next done, and the sigmoid flexure brought to the surface and incised. The trigone of the bladder carrying the ureters was then fixed into the intestinal wound and sutured in position. The incisions of both operations were then closed, but on account of the separation of the pubic bones the lower part could not be brought quite into apposition, and consequently had to be plugged temporarily. Recovery was complete. After the first night rectal micturition was fully established; at first there was some incontinence, but in a week there were only from six to ten stools daily some of which contained urine alone, but most showed both urine and feces. There was no diarrhea and no sign of renal trouble. The method employed (that of Tuffier), although long in duration (2½ hours), has the advantage over Maydl's plan that it does not open into the peritoneum in the region of the vesical mucous membrane; in this way asepsis is easier of attainment. Now, three months after the operation, the child is in good health, the rectum acts perfectly as a urinary reservoir, there is continence, and the bowels move on an average once every three hours.—*Brit. Med. Journal*.

Acute Diffuse Gonococcus Peritonitis.—DR. H. W. CUSHING (*Bull. of the Johns Hopkins Hosp.*, 1899, p. 75).

In the report of two cases of a general diffuse peritonitis with the finding of the gonococcus in the exudate and its subsequent cultivation, the author believes that the proof of the existence of a general peritonitis due to the gonococcus is finally established. Both cases were women and in their essential features exactly similar, in neither case was the true diagnosis suspected until cover-slip examinations of the exudate had been made during the course of the laparotomy, performed in each case. When the presence of the gonococcus was discovered, search of the Fallopian tubes showed them covered with exudate as was the rest of the peritoneal surface, but the fimbriated extremities free, from the mouth of which could be squeezed a minute drop of pus, which proved microscopically to be typical gonorrhoea.

In each case the abdominal pain and general symptoms pointed rather toward appendicitis with perforation, and vaginal examination was completely negative to touch, while the patients denied tenderness during vaginal examination, afterwards, however, acknowledging that the examination was painful. The examination of vaginal and urethral discharge was negative. In each case the peritonitis had come on during the menstruation following an exposure to infection.

The peritonitis was fibrinous in character rather than purulent, but in each case the entire peritoneal surface was involved.

Without reviewing the entire bacteriological examination, one accidental discovery is worthy of note. A sheet of fibrinous exudate, stripped from the surface of the liver, was dropped into a bouillon tube and placed three days in the thermostat, and cloudiness developed which was found to be due to numerous diplococci which decolorized by Gram, cultures from this showed no growth on ordinary agar. It is well known that the gonococcus grows well in Marmorek's human-serum bouillon (human blood-serum and bouillon) but will not grow on ordinary bouillon. It would seem in this instance as if the fibrin gave the neces-

sary addition to the bouillon, for it to be a good culture medium for the gonococcus.

The author's conclusions are:

1. The gonococcus is capable of causing a specific infectious disease, namely, gonorrhea, and at the same time other and less specific pathological conditions.

2. There is experimental proof that in certain small animals the gonococcus can set up acute alterations in the peritoneum homologous with the acute septic serositis in man, but differing from these in their tendency to rapid and spontaneous healing.

3. Hitherto there has been wanting conclusive proof that in the peritonitides attendant upon gonorrhea occurring in women, the gonococcus was solely or chiefly concerned. The inflammations had been variously regarded as mixed infections and chemical inflammations.

*4. The cases reported in this paper bring for the first time convincing evidence of the existence of a diffuse, general inflammation of the abdominal cavity caused by the gonococcus.

5. It has been recognized that extension of the gonorrheal infection from the genital organs to the peritoneum may occur in the puerperal state; a similar sequel is shown to be possible during menstruation.

6. Such ascending forms of gonorrhea doubtless under ordinary circumstances remain localized in the pelvis, and rarely demand surgical investigation in the acute stage.

7. A general involvement of the peritoneum such as occurred in the two cases given, must either be rare or unrecognized, and may depend upon some especially receptive condition of the serosa or virulence of the organism.

8. The peritoneum is not more immune than are the peri- or endocardium to gonococcal infection, and being more exposed, suffers more commonly in females, although the relatively benign course of the disease makes it a rare condition to come to the attention of the surgeon in the acute stages.

Pyonephrosis Complicating Gonorrhea.—DR. C. G. CUMSTON (*Univ. Med. Mag.*, p. 504, 1899).

The author reports a case of pyonephrosis occurring early in the course of a second attack of acute gonorrhea in a young man. For two weeks the case ran a typical, mild course, then the patient had beginning slight pain in the bladder and frequency of urination. Three days later this was followed by chills and fever, and when seen had a temperature of 101.3°. Examination of urine showed casts and albumin. During the next two weeks condition remained about the same, the temperature varying between 101.3° and 102.2°; then the patient had vomiting, and complained of severe pain in left side. Palpation of the abdomen showed a large tumor in the region of the spleen and extending to within two-fingers' breadth of the median line. It was painful to pressure, soft, but fluctuation could not be made out; percussion showed dullness. The following day a lumbar incision was made over the tumor, and on going through the transverse fascia the kidney appeared in the wound. An aspirating-needle was introduced into the kidney, and 950 cubic cm. of dirty, yellow pus withdrawn. An incision into the parenchyma of the kidney led to the evacuation of 300 c. cm. more of

pus. Exploration with the finger showed the pelvis to be greatly distended, and although the parenchyma of the organ had suffered, still there was sufficient left to assure functional use.

The borders of the kidney were sutured to the wound, a large drainage-tube was inserted into the abscess cavity, and the wound sutured above and below the drain.

The temperature gradually fell to normal, and the urine gradually increased in amount until the daily quantity reached normal.

The drainage-tube was left in for nine days, and then replaced by gauze wicks. Eight weeks after the operation a small fistula remained, through which passed a little clear urine.

The author gives an interesting resumé of the recent literature.

Cystitis Faveolata.—DR. F. KREISEL (*Medicine*, p. 542, 1890).

The author describes a form of chronic cystitis, stubborn in its response to treatment, which he calls "faveolata," from the honeycomb appearance of the bladder wall as seen through the cystoscope. He believes that it begins a superficial cystitis, and that it gradually involves the muscular coat to some extent, and after long continuance extends to the interstitial connective tissue, and finally the process may penetrate the entire thickness of the bladder wall, resulting in pericystitis. In the course of the disease, whether generalized or local, the muscular trabeculae may be destroyed by suppuration. In old persons, especially those suffering from urinary obstruction, this is more apt to be seen. In cases in which the inflammation is not so extensive as to result in destruction and contraction, the weak muscular coat gives way under repeated pressure from tenesmus forming a number of recesses between the muscular fibers which give the bladder-surface the characteristic look. The urine stagnates in these depressions, and a deposit of pus, epithelium, triple phosphates, and bacteria results, which, with ammoniacal decomposition, furnish material for keeping up a severe cystitis.

Although associated with obstruction to the urinary flow, the author claims to have seen this condition in middle-aged and old men without this complication. The symptoms are frequent urination, increased by standing, and aggravated by exercise or jolting; an ammoniacal urine, and paroxysms of pain during and long after micturition. At the end of urination a thick, sticky, gray mass is discharged, similar to that seen in chronic follicular prostatitis. There is also residual urine, even in cases without obstruction.

The author claims that the diagnosis can be made approximately without the cystoscope. Superficial cystitis may be excluded by a general and urinary examination; washing out the bladder with a normal salt solution will soon result in the water returning clear, while in the disease under discussion the return flow continues to return cloudy and murky. Stone may be excluded by examination with the searcher, while the possibility of injecting a large amount of fluid differentiates this form from cystitis dolorosa, contracture of the bladder, and pericystitis.

For treatment he advises boracic or benzoic acid in 4-grain doses every six

hours internally; in this form he advises against salol, naphthol, or urotropin. For local treatment washing out as thoroughly as possible the bladder with warm normal salt solution, using a hand-syringe and injecting small quantities at a time, then leaving in the bladder 1 ounce of a solution of subacetate of lead, $\frac{1}{2}$ gr. to the ounce, or chinosol in suspension in distilled water, $\frac{1}{16}$ gr. to the ounce. As the irritation subsides, instillations of solution of silver nitrate may be used once a week, after cleansing the bladder.

Bladder-drainage by the catheter *à demeure* or by cystotomy may be necessary.

The Presence of Typhoid Bacilli in the Urines of Typhoid Fever Patients.—DR. GWYN (*Johns Hopkins Hosp. Bull.*, p. 100, 1899).

From the results of several previous observers the author tabulates the following results:

1. In quite a high percentage, perhaps from twenty to thirty per cent. of all cases of typhoid fever, typhoid bacilli may be present in the urine.

2. When present they are usually in pure culture, often so numerous as to make the freshly voided urine turbid, and may then be detected by a cover-slip examination.

3. Appearing generally in the second and third week of illness, the organisms may persist for months or years, probably multiplying in the bladder, the urine being apparently a suitable medium for their growth.

4. Though often showing evidences of cystitis, and marked renal involvement, the urine containing bacilli has usually only the characteristics of an ordinary febrile urine; the presence of bacilli has no prognostic importance, and their disappearance or persistence without having induced local change is the rule.

5. Lastly, as shown by Richardson, irrigation of the bladder with bichlorid of mercury, and the internal administration of urotropin, a compound of ammonia and formaldehyd, seem to be safe methods of removing the bacilli; thirty or sixty grains of the latter quickly removing all bacilli in six cases.

The occurrence of several cases of cystitis among the typhoid cases drew attention to this phase of the disease. After cleansing the meatus and anterior urethra with 1-50,000 bichlorid solution, pure cultures could be obtained of the typhoid bacillus. In most of the cases pyuria and signs of bladder irritation were present, and led to the bacteriological examination; in other cases the urinary conditions aroused no suspicion.

Case I., reported by Dr. Cushing, which presented a chronic cystitis, which had existed four years, followed an attack of typhoid. Pure cultures of the typhoid bacillus were obtained by aspiration of urine from the bladder. Improvement occurred after bichlorid irrigation of the bladder, but the case passed from observation.

Case II., had cystitis occurring at the end of a relapse, six weeks from the beginning of his illness. Typhoid bacilli in large numbers were obtained in pure culture. All symptoms cleared up under irrigation with bichlorid (1-50,000), and three months after discharge the urine was clear and on culture negative.

Case III., never gave the Widal reaction, developed pyuria in the third week,

cultures showed numerous typhoid bacilli. The case cleared completely after use of bichlorid irrigations, and three months after the urine was clear and negative to culture.

Case II., pyuria in fifth week. Cleared under bichlorid irrigation, but passed from observation.

Case I., developed cystitis three months after an attack of typhoid. Bacilli were numerous in the urine. This case cleared under irrigation, and three months after was still free.

Case VI., developed severe nephritis and cystitis in the third week, urine turbid from pus and innumerable bacilli. Urotropin was given, gr. x 3 times daily. In two days no bacteria were seen, but ten colonies of bacilli grew on culture from 1 cm. After five days no bacilli could be cultivated. Urine remained clear for two weeks, and, though still on the urotropin, bacilli reappeared in considerable numbers.

Case VII.—Pyuria and cystitis in third week, bacilli numerous, though patient did not react to the Widal test. Under urotropin gr. v. 3 times daily, the case quickly cleared, but on the eleventh day pus and bacilli reappeared; under the continued treatment they disappeared in six days, and did not again reappear.

Case VIII., a case of typhoid septicemia running an irregular course, showed a trace of albumin and turbidity of urine, which was found to be due to the bacilli, which rapidly diminished while under urotropin, but the case died on the fourth day. The urine in the bladder showed very few bacilli, but the bacilli were found throughout the body and in the blood.

The number of cases thus noted by many observers show that the urine of a large percentage of typhoid patients is really affected, and should be in all cases disinfected before being thrown out. Farther observations such as these call for a closer observation of the urine of typhoids.

Report of a Case of Foxtail Infection.—DR. R. C. CHAMBERLAIN (*Trans. Wyoming State Med. Soc.*, May and Nov., p. 58, 1898).

The patient, thirty-five years old, laborer, while riding on a load of hay, passed two heads of foxtail grass into the urethra and then found he was unable to remove them. He had no inconvenience for three or four days; then the penis began to swell, and he had difficulty in voiding his urine. After several days' suffering he was brought to the hospital. On examination his extremities were cold, temperature 97°, pulse 112, tongue furred, and teeth covered with sordes. Abdomen tympanitic, bladder distended, penis very much swollen, marked phimosis, and a whitish, fetid discharge from the urethra. The scrotum was swollen, hard, and ecchymotic.

Four pints of urine were withdrawn by the catheter. Wet bichlorid dressing applied to the swollen parts. Three days later the scrotum began to slough, then the under side of the penis, then an abscess formed just above the right of the symphysis. The tissue from either side of each buttock began to slough, and the entire covering of the testes and under surface of the penis sloughed away. The temperature ranged between 94° and 97°. There was no enlargement of the lymphatic glands, no lymphangitis, nor phlebitis.

Under an anesthetic the testes were removed and all the sloughing masses

curetted out, a catheter inserted into the bladder, and the wound dressed.

The spikelets of the foxtail were obtained from each slough.

DR. R. H. REED, whose patient this was, in discussing the case, stated that from the history the foxtail was passed into the bladder, the spears having separated from the head of the foxtail, immediately began to penetrate the soft parts, some escaping into the right iliac region, others into the ischioperineal region, another flock penetrating the scrotum. The barbs of the plant are so arranged that they continue in a given direction, depending on their location and on muscular movement they work their way onward until they meet a barrier or set up a terrific inflammation, followed by suppuration and necrosis, until their escape is effected. The poison he does not attribute to the foxtail itself, but probably to their irritable action as a foreign body, together with germs which they may carry with them. He further stated that cattle eating this grass are subject to similar wide areas of necrosis of tissue, the barbs penetrate the soft tissues of the mouth, causing large ulcers, followed by necrosis of bone, and at times they penetrate the intestines and cause peritonitis. [It seems to the reviewer that in this case much of the destruction of tissues is to be attached to extravasation of urine following the burrowing of the barbs.]

Surgical Treatment of Nephritis or Bright's Disease.—DR. A. H. FERGUSON
(*Medical Standard*, p. 215, 1899).

The author believes that in certain selected cases, surgery offers some hope of relief in this condition and reports two cases in which the splitting and stripping up of the capsule from the kidney gave complete relief to symptoms which had existed in one case two and in the other case three years.

Case I.—A woman, thirty-seven years old, had had persistent pain over left kidney, with severe exacerbations, for three years; unable to work for three months. Urine contained no albumin, but was scanty, and hyalin casts were found once in several examinations. There was marked pain and tenderness over the left kidney, deep pressure causing an exacerbation of the pain lasting an hour. No diagnosis was made, but stone in the kidney was suspected. The operation consisted in exposing the kidney by the oblique incision, removing the fat. When the fibrous capsule was split the cortical substance bulged, showing marked intracapsular tension. The capsule was peeled off and was non-adherent except at one place. The kidney was explored with a blunt needle, but no stone felt; it bled freely from the punctures. The capsule was sutured to the lumbar fascia, a drain inserted, and the rest of the wound sutured. This operation was followed by complete relief of symptoms. A small portion of kidney tissue was removed and examined, and found to be the seat of chronic parenchymatous nephritis.

Case II.—A woman, twenty-six years old, had chronic pain over right kidney for two years, with acute exacerbations, confined to her bed last two months, was taking large amount of morphin for relief of pain. For eight months there had been a daily rise of temperature, chills, etc. Urine scanty, contained no albumin, a few coli bacilli and staphylococci present. Her condition followed an operation on the cervix uteri. Right kidney could be palpated, and painful to pressure. The operative procedure on the kidney was similar to the first one. A small amount of kidney tissue removed showed the kidney to be the seat of

an interstitial nephritis. After operation there was complete relief of pain and increase in flow of urine. The micro-organisms persisted, but were fewer in number.

The author believes that the following prominent symptoms call for exploration of the kidney:

(1) Persistent pain; (2) persistent tenderness; (3) persistent hematuria; (4) persistent albuminuria; (5) persistent pyuria; (6) persistent, troublesome abnormal mobility; and (7) persistent enlargement. The two cases above reported had only persistent pain and tenderness.

Air Inflation of the Bladder.—DR. A. WENDENBURG (*Med. Record*, July 1, p. 34, 1890) writes Dr. Bransford Lewis with reference to filling the bladder with air preliminary to doing the Bottini operation for hypertrophy of the prostate, that he had been deterred previously from using air-inflation on account of the experiments of Lewin and Goldschmidt, but since reading Dr. Lewis's reprint from the *Philadelphia Medical Journal*, December 10, 1898, he had made use of air in nine cases. He considered air-inflation of the bladder a further progress in the technic of the operation.

In filling the bladder with air he filters it through sterilized cotton, placing the cotton in a glass tube, conical at one end, the other end fitted with a bit of rubber tubing, which is joined to the syringe filled with air, and the conical end is joined to the catheter by rubber tubing. The whole apparatus is sterilized by steam.

Gonococcus Infection.—MESSRS. RENDU and HALLE (Abstract from *Medical Standard*, p. 278, 1899) have reported a case of gonococcus infection followed by death.

The patient was admitted to the hospital suffering from a mild form of gonorrhoeal metritis. Soon there developed accidents of infection, chills, suppurative periarthritis, hectic fever, and, lastly, an ulcerative endocarditis. During life, a culture made from the uterine cervix showed gonococci, though there were no traces of vaginal blennorrhoea; gonococci were also found in the serum of the periarthritic edema.

At the autopsy, gonococci were found in the heart, in the pleura, in the pericardium, wherever inflammatory lesions were present, and especially in the valvular vegetations, where they abounded. No other micro-organisms were found.

It is difficult to explain why these gonococci that probably had long been present in the cervix suddenly assumed such virulence; it is probable that this woman, who had recently been subjected to great worry and sorrow (pecuniary difficulties, death of mother, etc.), presented, owing to her lessened physiological resistance

On Extroversion of the Bladder.—W. J. WALSHAM, M.B., C.M., F.R.S.C. (*The Practitioner*, p. 151, 1899).

The author believes that this deformity is best explained by arrest of development of the allantois. The treatment may be palliative or radical. The palliative

consists of fitting the patient with a rubber apparatus to collect the urine. The radical treatment he considers under the following heads:

1. Conversion of the mucous membrane of the bladder into a skin surface.
2. Conveying the urine to a more convenient situation.
3. Diverting the streams of urine from the open bladder into a closed cavity, as the rectum or colon.
4. Forming a new bladder.

1. *Conversion of the Mucous Membrane of the Bladder into a Skin Surface.*—This has been attempted by use of caustics, which is not unattended with danger, as it may lead to contraction of the mouths of the ureters, or to inflammation, which may extend along the ureters to the kidneys. Skin-grafting may be resorted to in cases where the formation of a new bladder is contraindicated, but does not hold out much prospect of success; its object is to substitute an insensitive for a sensitive surface.

2. *Conveying the Stream of Urine to a More Convenient Situation.*—The case of Reginald Harrison is cited, in which he removed one kidney and then, after the other became compensatory, the ureter was divided and the proximal end sutured into a lumbar wound. The patient lived only a few months after the operation, dying from kidney trouble, from contraction of the orifice, backward pressure, and extension of inflammation up the ureter, which are the dangers attending this procedure. It is a question, also, whether this is the best position for the exit of the urine.

3. *Diverting the Stream of Urine from the Open Bladder into a Closed Cavity.*—With this object the ureters have been made to open into the rectum or colon. According to the author, no success practically has attended this procedure. The difficulties are the prevention of cicatricial contractions of the ureteric orifices, the probability of increase in septic conditions from the decomposition of the urine thus mixed with feces, and the numerous micro-organisms which swarm there, the danger of these conditions causing some form of infection of the kidney.

4. *The Attempt to Form a New Bladder.*—Various suggestions and operations have been made; the most feasible are: (a) the flap operation, and (b) the closing in the bladder by bringing the edges of the bladder mucous membrane together and suturing.

The flap method, known as Wood's, consists in dissecting up an oval flap from the skin of the abdomen above the bladder and turning it down, suturing its upper border to the lower border of the exposed mucous membrane, and sliding lateral flaps from the abdominal wall over this anterior flap, allowing their raw surfaces to be in contact. The objection to the flap operation is that after puberty the hair in the turned-in flap may grow and become incrustated with phosphates. Some maintain that this objection is theoretical rather than real, that the contact of the urine destroys the hair-bulbs, and the epithelium of the skin comes to resemble the epithelium of the mucous membrane.

The last method, theoretically the best, is bringing the borders of the bladder mucous membrane into contact, and in patients under five, the attempts to correct the separation between the bones of the symphysis by the method suggested by Trendelenburg, of separating the sacro-iliac synchondrosis on each side, and forcibly pressing the iliac bones together till the separated pubic bones are in contact. Pressure is continued till the gap in the sacro-iliac synchondrosis has been filled in and the pubic bones show no tendency to separate. Then the bladder

may be attended to and the edges more easily brought into contact. The mucous membrane being brought together by catgut sutures and the skin by deep sutures of silkworm gut.

In patients above five years, Mikulicz's method or Anderson's modification the author considers the best. The former consists in detaching the pubic crest with insertion of the recti muscles, bringing them into contact in the middle line. An incision is made an inch to either side of the bladder down to the peritoneum and the recti muscles are dissected up as far as the pubic crest and this is removed with the saw. Then, after suture of the bladder, the skin and recti muscles are sutured in the median line.

Anderson's modification takes the skin over the recti muscles only, and dissects up two lateral flaps, which are brought together in the median line, their raw surface covering in the raw surface of the turned-in bladder.

After union is complete, attention is then paid to the epispadias and the union of this with the closed-in bladder. The author reports one case thus treated, in which the urine could be held comfortably for two and one-half hours.

Therapeutic Reports

This department has been opened for a free discussion of the merits of preparations offered for the use of the profession.

IRON AS AN ADJUVANT IN THE TREATMENT OF SKIN AND VENEREAL DISEASES.

BY J. S. FERGUSON, M.D.,
New York.

That iron is a valuable adjuvant in the treatment of anemia is a well-recognized fact. The preparation to be used has been the subject of much discussion.

Having in view the avoidance of the digestive disturbances which so frequently accompany the administration of this remedy I determined to use the preparation known as pepto-mangan. Gude, in anemias and to test the results by means of repeated examinations of the blood. Five cases were thus observed. the dosage in all cases being two teaspoonfuls to be taken three times daily one hour after meals.

CASE I.—H. G., female, age 21, born in U. S., of German parents, menstruated once when 13 years old but never since then. For several years she has suffered from a severe anemia for which

she has been treated with many of the ordinary preparations of iron with no results other than attacks of indigestion. She now has edema of the feet and ankles, dyspnea on exertion, and extreme pallor, the mucous membranes appearing almost bloodless. She has had acid eructations for some time and has been much troubled with urticaria the lesions being mostly confined to the abdomen and back. The heart, lungs, spleen, and lymphatic system are all normal. She has lately been taking a mixture containing tincture ferri chloridi.

Treatment was begun February 27, 1898. Five days later the urticaria had entirely disappeared and in two weeks the acid eructations had ceased and her color was noticeably improved. In two months, except for the amenorrhea, all subjective symptoms had disappeared. July 15, 1899, her color still remains excellent and except for the absence of the menstrual flow her health appears perfect.

CASE II.—Mrs. L., age 31, native of Ireland. February 24, 1898, she had a

miscarriage at the third month of gestation. This was accompanied by considerable loss of blood, thirst, dyspnea, excessive pallor and the other symptoms of anemia. The heart and lungs were normal and there was neither splenic nor lymphatic enlargement. This case improved slightly under treatment for one month. A profuse menstrual discharge then occurred, after which treatment was irregular and improvement but slight. Her condition at time of writing is unchanged.

CASE III.—M. B., female, age 10, born in U. S. Presents a marked rheumatic history. She has a mild attack of chorea, accompanied by slight dyspnea on exertion and pallor of the mucous membranes. The heart and lungs are normal. There is no lymphatic nor splenic enlargement. Her color improved slightly and the chorea symptoms entirely disappeared in one month. She remains healthy at the present time.

CASE IV.—C. B., female, age 17, born in U. S., of German parentage. Presents a strumous diathesis, considerable enlargement of the cervical lymphatic glands, an erythema induratum of the lower extremities, and necrotic granuloma of the hands and arms. Has been ill for two years past. Pepto-mangan was added to her treatment on February 4, 1899. Three months later the skin eruption had disappeared, the cervical glands were somewhat diminished in size and she said she "felt much better."

The condition of the blood did not, however, show a coincident improvement.

CASE V.—J. M., male, age 25, native of U. S. The patient contracted malaria while in the government service in Porto Rico during the summer of 1898. He returned to New York in October, 1898, and then developed a non-virulent bubo, probably secondary to infected herpes vesicles on the glans penis. A cachectic condition developing, treatment was begun with pepto-mangan on January 26, 1899 and continued for four months with slight improvement. The patient

had previously been tuberculous.

In May, 1899, the plasmodium malarie was still present.

Other cases, notably of gonorrhea, which exhibited clinical evidence in the later stages of anemia, were put on pepto-mangan as a tonic. Blood examination in spite of the mucous membrane paleness, etc., showed no diminution of hemoglobin percentage and number of red cells; clinically, as in the case of erythema, the appearance was one of great improvement.

PARASITIC SKIN AFFECTIONS TREATED WITH SAPODERMIN.

BY M. F. J. CROWLEY, M.D.

EDITOR, JOURNAL OF CUT. AND G.-U.
DISEASES:

The following cases illustrate the properties of this new antiseptic soap.

CASE I.—Male, age 28. Came to me to be treated supposedly for scabies; he gave a history of having contracted the itch about one year ago, and of being treated for the same by one of our local physicians.

He has since then at intervals continued the treatment, which consisted in the application of some ointment to the affected parts.

At the time of my observation I concluded that the patient was suffering from an eczema, it being a secondary condition due to the persistent use of treatment and the consequent irritation produced by the same. His entire body with the exception of the scalp, palmar and plantar regions, was covered with a general papulo-pustular and pustulocrustaceous eruption, being accompanied by numerous scratch marks and in places considerable induration of the epidermis. He had intense pruritus. I directed patient to take a warm bath, and then to apply a thick lather of sapodermin soap (1 per cent. hydrarg albuminate) al-

allowing the lather to remain upon the skin six hours, then to be washed off with tepid water and the skin thoroughly dried. This process as repeated four times altogether. After the first application of sapodermin the patient experienced considerable relief, the crusts were entirely removed and the skin was not so irritable. After the second application the patient complained of but very little pruritus. After the fourth application the skin was practically in a normal condition, no induration nor pruritus, merely a slight redness of the surface, for which I directed the patient to use a desiccant powder.

CASE II.—Female, age 34. Presented herself to be treated for a parasitic eczema of the genito-crural region. The duration of the disease being eight months. The parts were much indurated and thickened, the border of the patch was well defined and elevated. The parts were exuding a serous or sero-purulent discharge and being intensely pruritic.

I directed patient to make a thick lather of one-per-cent. sapodermin soap allowing it to remain upon the surface for several hours. Then to be washed off and the skin dried thoroughly. This process was repeated morning and night. The first two applications had no appreciable effect. After the fourth application the margin appeared less distinct, the center seemed to clear up, and in general there was much less thickening of the parts and no pruritus. I saw the patient again twelve days after the first application. The surface showed merely a very slight hyperemia. I then discontinued using the sapodermin and had the patient use a talcum powder until the parts assumed a natural color.

I have also tried the remedy upon a case of chromophytosis with good results and am using it upon a case of non-parasitic eczema.

XEROFORM IN ARMY SURGERY.

BY EMILIO P. NOGUERA,

Surgeon-in-Chief of the Spanish Army Sanitary Corps, Chief of the Surgical Clinic at the Army Hospital at Jimenez (Cuba).

(Abstract from *Revista de Medicina y Cirugía Práctica*, Madrid, April 25, 1909.)

During the Cuban war I had the opportunity to employ xeroform in a great number of wounds, occasioned both by bullet and by steel.

My observations entitle me to draw the following conclusions:

1. Xeroform is a powerful antiseptic for wounds, and is capable of being of the very greatest service in military surgery.

2. It absorbs the secretions from the bleeding surfaces, sterilizes them, and renders the wounds absolutely dry and free from the germs that are capable of causing secondary infections.

3. Since the very simple dry xeroform treatment above detailed maintains wounds aseptic for forty-eight hours and longer, it is absolutely irreplaceable for first treatment on the battlefield and during the accumulation of patients in emergencies in hospitals deficiently supplied with personnel. For it permits postponement of the treatment without any danger to the patient.

4. In wounds accompanied by loss of tissue it favors cicatrization by the small, firm, and regular granulations that it promotes, and it never causes the appearance of the soft, spongy granulations that so often follow the employment of other antiseptics, more especially iodoform.

DOLOMOL COMPOUNDS

EDITOR JOURNAL CUTANEOUS AND GENITO-URINARY DISEASES:

I have made an extensive trial of the various dolomol compounds.

The Polvoda Chemical Co. only make

2000) to the superiority of their base, pulvula or dolomol, the various compounds consisting of well-known drugs widely used in dermatologic practice incorporated with it.

Dolomol is a fine, water-proof powder, of light specific gravity, making it an excellent base in a variety of skin affections. The following dolomol preparations were used by me: Dolomol-acetanilid, 25 per cent.; dolomol-ichthyol, 10 to 10 per cent.; dolomol-resorcin, 10 per cent.; dolomol-iodoform deodorat, 10 per cent.; dolomol-cade, 10 per cent.; dolomol-thymol, 2 per cent.; dolomol-chrysarobin, 5 per cent.; pulvula or dolomol plain.

The preparations were used in more than a hundred cases of various disorders of the skin and with varying results. For acute and subacute conditions I found suitable compounds generally satisfactory, but for chronic skin lesions the results were decidedly negative.

The uses and results of the various preparations are appended.

Dolomol-acetanilid, 25 per cent., used in neurotic and varicose ulcers, chancreoids. In the neurotic ulcers and chancreoids, especially, the cure was much quicker than from any remedy previously used by me for those conditions. Dolomol-ichthyol. In varicose ulcers, varicose eczema, dermatitis (from iodoform

and *Rhus* tox.), acne simplex, burns, erythema intertrigo the results were good, generally, but in indurated acne, the dermatitis from *Rhus*-tox., ulcers with gangrenous bases, and sluggish ulcers with hardened edges the results were negative.

Dolomol-resorcin, 10 per cent., used in seborrheal eczema of face and body, seborrhea oleosa and acne with the happiest of results. As an adjunct to more stimulating remedies for acne, for greasy, shiny skins (seborrhea oleosa), used as a face-powder, it is unexcelled.

The pulvula plain also makes an excellent face-powder and I prescribe it when a face-powder is desired.

Dolomol-iodoform deodorat, 10 per cent., used in varicose, traumatic, and specific ulcers, chancreoids, and as substitute for iodoform over fresh wounds and cuts with excellent results. Dolomol-cade, 10 per cent. Fairly good results were obtained in subacute eczema; negative in chronic eczema.

Dolomol-chrysarobin, 5 per cent., used in parasitic eczema, ringworm, and psoriasis with negative results—not a good base for use in chronic skin lesions. Dolomol-thymol, 2 per cent. Pleasing action in allaying itching of acute urticaria and prickly heat.

THURSTON G. LUSK, M.D.

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Original Communications.

TWO EPIDEMICS OF ALOPECIA AREATA IN AN ASYLUM FOR GIRLS.

BY JOHN T. BOWEN, M.D.,

Physician for Diseases of the Skin, Massachusetts General Hospital, Boston.

THE first of the two epidemics of alopecia to be discussed in this paper, was described by Dr. Chas. P. Putnam in a communication read before the American Pediatric Society in May, 1892, and published in the *Archives of Pediatrics* for August of the same year. As I was enabled, through the kindness of Dr. Putnam, to observe and to study closely this first epidemic, as well as a second epidemic of much the same character apparently, that broke out in the same institution six years later, I have thought it of interest to set before this Association the facts regarding the two epidemics, and the connection that could be traced between them.

The Asylum in question is situated near the center of Boston and its inmates are homeless girls between 3 and 14 years of age. In January, 1891, Ethel S., eleven years of age, was sent to Dr. Putnam on account of some bald areas that had appeared on her scalp, and a few weeks later I had an opportunity of seeing the case myself. This girl had lived in the asylum for eight years, and associated with no other children than those in the institution. Her general condition was good. When first seen, she presented three roundish patches of bald scalp on the crown of the head, two of them nearly an inch in diameter, and none of

them showing scales or broken hairs. Clinically it seemed to be a typical picture of alopecia areata, as we commonly see it.

Several weeks later, another girl, seven years of age, was found to have a perfectly smooth rounded patch of alopecia near the crown of the head, which increased rapidly, until it had become as large as a silver dollar. There were also several smaller patches of irregular and elongated shapes.

During the last week of May, four months after the affection had shown itself in Ethel S., the first one in whom the alopecia was noticed, it was suddenly found that a large number of the girls in the asylum were affected to a greater or less degree. At this time the hair of all the children was closely cut, as was the custom at that season of the year. The result was the discovery that 63 of the 69 girls in the institution had bald patches upon the scalp. It may be mentioned that at the time of the epidemic the general health and the nutrition of all the children was good.

At this time it was found that the areas in the first two cases had increased considerably, in spite of treatment. Ethel S. was the most extensively affected; one large area of baldness extended over a large part of the right occipital region. Besides such areas as we see in the ordinary sporadic cases of alopecia, there was in this case a diffused "patchy" appearance of baldness not unlike what is seen in syphilitic alopecia, except that the areas were more sharply outlined.

With regard to the epidemic as a whole, certain characteristics were apparent. In the first place, in a large number of the cases the spots of baldness were small and more irregular and angular than we are in the habit of seeing in alopecia areata of the ordinary type. When the patches increased in size, however, they assumed a more or less circular shape. In a number of children the whole scalp was dotted with these small irregular areas, so small that it sometimes required close observation to determine whether they were really bald areas. In one case, eighty bald areas were counted. It is to be emphasized, however, that although the presence of very numerous, small, and irregular patches was a characteristic of the epidemic as a whole, there were still many cases in which larger patches, in no way differing in appearance from ordinary alopecia areata, were also present, and some cases in which the latter form was the only one.

In a very few of the cases the skin of the bald areas was glistening and atrophic, and in one or two instances it was possible to feel a distinct depression with the finger. In no single instance were broken hairs or scaling detected, nor were any of the other clinical characteristics of *tinea trichophytina* apparent.

In spite of vigorous treatment the cases continued to get worse for about a month after the hair had been cut and the extent of the epidemic discovered. Some cases presented more numerous spots, and in others the individual areas had increased in size. One child, who had just entered the asylum, acquired a spot in *three days*, and several days later presented others.

At the end of about two months, the affection seemed to have come to a standstill and from that time on a gradual but steady improvement was noted, and at the end of six months, almost all of the areas were covered with hair. Some denuded areas were still left, however, and this especially in the case of the two girls first affected. The hair had grown in well over the areas in which a distinct atrophic condition existed.

Repeated examinations were made of the hair, taken from a great many of the cases, and from different parts of the same head. The roots of the hair immediately surrounding a bald patch were atrophic, but the medulla appeared normal. No trace of micro-organisms could be detected under various methods of staining.

There were four older girls who acted as officers, sleeping in the same rooms with the children at the time the epidemic was discovered. Neither they nor any adult inmate of the asylum became affected.

With regard to treatment, a number of different methods were tried on different children. It could not be determined that one method produced any better results than another.

Ethel S., the first case discovered in the epidemic that has been described, left the asylum in April, 1894, and was taken into a private family. It was impossible to determine definitely whether any bald patch existed at the time she left the institution, as the girl herself was careless and not particularly intelligent. It is certain, however, that if any such remained, it must have been very small, as all of the larger areas had filled in. It was found later that the husband of the woman with whom she went to live developed several bald patches of the scalp not very long after her coming to them. The hair grew again upon these areas without treatment.

In January, 1897, Ethel S. was readmitted to the institution. She was then seventeen years old. It is possible that some small area or areas may have existed at this time, although nothing was evident. In February or March, an area of baldness was noticed on the head of another girl. During the summer of that year, four or five months after Ethel S. had reentered the institution, it was found that twenty-six of the forty-five girls who then constituted the asylum had some bald area or areas on the scalp. Of these twenty-six, only four had

been inmates of the asylum at the time of the previous epidemic. Ethel S., at this time presented, as in the former epidemic, several large areas of complete baldness, not differing in type from the ordinary alopecia areata. In all the other twenty-five, however, the characteristics that have been referred to in the previous epidemic were very prominent. In the former epidemic a number of children showed the characteristic form of alopecia areata. In this epidemic, Ethel S. alone offered such appearances. In all of the others the lesions were small, dotted, irregular, elongated, with a cicatricial appearance in several instances. As before, there were none of the appearances of *tinea trichophytina*, and repeated examinations of the hairs revealed no parasite.

The treatment in this epidemic was washing with soap and solutions of corrosive sublimate, and the application of acetic acid in ether to the affected areas.

In September it was found that no new spots had appeared on any of the children and that many of the old ones were covered with hair. At this time Ethel S. was admitted to the Massachusetts General Hospital for the treatment of an affection about the knee-joint. At that time the size of the areas had diminished considerably, but there were still several distinctly denuded patches. From one of the patches that had appeared later than the others and that had not begun to show signs of a new growth, a piece was excised for microscopical examination. This patch presented macroscopically a slightly atrophic condition of the surface.

Microscopically, the most prominent feature was the great atrophy of the pilo-sebaceous follicles. The sebaceous glands were present in normal numbers, but their nuclei had in many instances disappeared from the cells, and sometimes the cells were merged together in a granular mass. In some cases the center of the gland was occupied by a cavity where the cells had fallen. The hair-follicles proper were greatly atrophied, and usually empty. In some places a portion of the hair-root remained, or a mass of horny matter. The sweat-glands were normal. The epithelial structures were otherwise unchanged. In the corium there was a moderate increase in the number of fibrous connective-tissue cells. There was a very slight enlargement of the superficial vessels, and a few leucocytes in their vicinity, mostly of the lymphoid variety. Large numbers of mast cells were found especially about the walls of the vessels. A comparison with a case of senile alopecia, showed that in the latter also, there was a great excess of mast cells. There were no plasma cells. The muscle fibers, which were pretty numerous, were unchanged. There was a slight evidence of

fibrosis or sclerosis about the vessels. All attempts to discover micro-organisms of any nature proved failures.

The result of the excision of this piece was a rapid growth of hair on the affected area, which had remained stationary for a considerable time previously. Two months later several new spots appeared. It was thought that they began with a small scaling papule about a hair-follicle, but it remained a question whether this was primary or the result of scratching. Examination of the hair even at this early stage was always negative.

In January, 1898, the school was examined again. Ethel S. had left the institution, and only one child presented a well-defined bald area. Recent enquiry elicits the information that there have been no later developments.

In April, 1899, it was learned that no bald areas remained on Ethel S.'s scalp and that the hair generally was thick and vigorous.

To summarize briefly: A girl of eleven years, who had lived for eight years in an asylum for girls, was discovered to have several spots of baldness differing in appearance in no way from ordinary alopecia areata. A few weeks later another girl in the asylum was found to be similarly affected. Four months later it was found that 63 of the 69 children in the institution were affected to a greater or less extent. As a whole, the epidemic was characterized by the small size and irregular, angular, and linear form of the bald areas; although in a small number of instances the larger areas usually seen in alopecia areata were present. At the end of two months the areas began to fill in and at the end of six months a few patches only could be found.

The girl in whom the affection was first observed left the institution and was away three years. It is not definitely known whether the hair had grown over all the bald areas or not, but it is not unlikely that some small areas had persisted. Six years after the first epidemic she reentered the institution, at the age of 17. There had been no cases of scalp affection in the asylum since the previous epidemic. A month or six weeks after her entrance spots of apparent alopecia areata were discovered on the head of one of the children, and four or five months after her return twenty-six of the forty-five children were found to have spots of baldness of the same small, dotted, and angular character as those of the first epidemic, areas in no way differing from those of alopecia areata as ordinarily seen.

I have thought it of sufficient interest to record these two epidemics with their connecting link, from the fact that such an experience has not been before encountered in this country, so far as I am aware. All are familiar with the numerous epidemics of a like nature described

by Hardy, Besnier, Feulard, and other French dermatologists, as occurring in regiments, schools, fire-brigades, etc., which are placed in the category of the "pelades." Strangely enough these epidemics seem to have been pretty generally confined to France, and have not been observed in other countries. There can be no doubt, however, that the two epidemics that I have described belong in this same class, and it is at least a fair assumption that the etiology in all of these instances is the same. It is difficult to escape from the conclusion that such epidemics are caused by a more or less direct contagion. It is also more than probable that in the two epidemics I have described, the girl, who was apparently first affected, communicated the disease to others in the school. After leaving the institution, she may or may not have transmitted it to an adult with whom she lived. The patient was not seen and therefore the evidence is inconclusive. But as her return to the school was followed by another epidemic similar to the first, it is again more than probable that she had continued to be a source of infection.

It is not my purpose to discuss at any length the etiology of alopecia areata in general. This question was the topic of general discussion in this Association in 1892, and while the tropho-neurotic and parasitic theories each found their advocates, a considerable number of the members present expressed the belief that in some instances at least alopecia areata is a contagious affection. I know of no especial evidence that has been acquired since that time, to alter our opinions. Sabouraud has not proved that the disease is caused by his micro-bacillus, although his reasoning from the histological findings that some such agent *may* be active, is not without weight. I have called the two epidemics alopecia areata, as a number of the cases were indistinguishable from this disease as it commonly appears sporadically, and as the French "pelade," under which title the foreign epidemics have been described, is embraced under our term alopecia areata. It has been emphasized, however, that there were some features of these epidemics that differed from the cases commonly seen; *i. e.*, the small size, and jagged, angular outline of the bald areas. I find that Horand declares that in the epidemics among soldiers many of the spots are small and lenticular.

Correspondence.

A NEW LUBRICANT.

EDITORS OF JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES:

In the *Annals des Maladies des Organes Genito-Uriinaires* for January, 1899, Dr. Oscar Kraus of Carlsbad, recommends a lubricant for genito-urinary purposes, the base of which is not an oil or fatty substance, but gum tragacanth, I made up a quantity of the same and have used it in my private practice with the most satisfactory results.

Its advantages, beside that of being an excellent lubricant, are the following: First and foremost, it costs practically nothing and any physician possessing a mortar and pestle can make it himself in twenty minutes.

Secondly, it is soluble in water and instruments are easily cleansed by immersion in warm water, even after the lubricant has dried on. On this account also it possesses peculiar advantages for endoscopic work, as it leaves no film on the surface of the cystoscope prism and can be readily and completely removed from the urethral walls during urethroscopy, by a swab of dry cotton, thus avoiding any addition to their already too-powerful reflecting properties.

Thirdly, it is perfectly unirritating so far as I have been able to discover (and I have tried it also in my own urethra).

Fourthly, it remains aseptic when left uncovered during the whole of consultation hours and the tips of the instruments (sterile of course) dipped in it.

This lubricant is prepared as follows:

R Gum tragacanth	gr. 48
Ac. carbol. (95-per-cent. solution)	m. 50
Glycerin.	34.
Aquæ ad.	33

Mix the latter three constituents, pour the resulting liquid upon the gum tragacanth in a mortar and let stand over night. The next day triturate with pestle till a homogeneous mass is formed. It can then be used from an ordinary ointment jar.

E. WOOD RUGGLES.

Rochester, N. Y., July 26, 1899.

CONFERENCE FOR THE PROPHYLAXIS OF SYPHILIS.

NEW ORLEANS, LA., August 3, 1899.

EDITOR OF THE JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES:

At the wish of Dr. Dubois-Havenith, Secretary-General of the International Conference for the Prophylaxis of Syphilis and Venereal Diseases, and also for the Study of Methods for the Control of Prostitution, I would ask that you give some notice to this important meeting, to be held in Brussels, September 4th and following days. Papers are to be read by Drs. Fournier of Paris, Neisser of Breslau, Lassar of Berlin, Finger of Vienna, and by a number of others promi-

nent as students of these questions. The committee have indicated the following as delegated to investigate conditions of prostitution in their respective countries:

Argentine Republic, Dr. Baldomero-Sommer, Buenos Ayres; Austria, Dr. Finger, Vienna; Belgium, Drs. Bayet and J. Verhoogen, Brussels; Bosnia, Dr. Gluck, Savajevo; Chili, Drs. Valdes-Morel, Santiago; Denmark, Dr. Ehlers, Copenhagen; England, Drs. Geo. Ogilvie and Drysdale, London; France, Drs. Ozenne and Julien, Paris; Germany, Drs. Blaschko, Berlin, and Neisser, Breslau; Hungary, Dr. Rona, Budapest; Holland, Dr. Selhorst, The Hague; Italy, Drs. Tommasoli, Palermo, and Bertavelli, Milan; Norway, Dr. Axel-Holst, Christiana; Roumania, Dr. Petrini de Galatz, Bucharest; Russia, Dr. Petersen, St. Petersburg; Sweden, Dr. Welander, Stockholm; Switzerland, Drs. Jadassohn and Schmid, Berne; Turkey, Drs. Von Duhring and Zetes, Constantinople; United States, Dr. Isadore Dyer, New Orleans.

Very respectfully.

ISADORE DYER, M.D.

Dr. Denslow Lewis of Chicago, in response to the request of Dr. Dyer, the representative for the United States to the International Conference for the Prophylaxis of Syphilis, etc., to be held next month in Brussels, has written to the Secretary-General as follows:

"Your conference is the most important gathering of medical men the world has ever known. The matters you will discuss are of vital interest to the individual and to society in general. The tendency of your deliberations is altruistic and philanthropic. You will consider the consequences of a God-given instinct improperly and injudiciously applied. You will treat in no illiberal manner, of practical methods best calculated to preserve the health of our youth and to protect the best interests of society.

"In the consideration of the prostitute I beg that no inconsistent spirit of assumed superiority may prevail. I trust it will be remembered that she is the victim of man's ill-directed obedience to a dominant instinct. She is the creature of our civilization and not a criminal. She is entitled to care and not punishment. She is a citizen who should receive the protection of our laws. She is an outcast from certain grades of society only. She is still a woman and at one time she was a pure and innocent child. She is now what she is not because of innate depravity but because our sociological conditions fail to solve the problem the solution of which would make her existence impossible.

"She is of special interest to the hygienist and practitioner of medicine in so far as she serves as a disseminator of disease. Her care should consist in restrictive measures against the spread of disease and only to that extent should she be the object of police surveillance. Facilities for diagnosis and treatment of venereal disease should be multiplied. Measures which infringe on the personal liberty of the prostitute are inconsistent with our civilization except so far as they bear on the prophylaxis of disease."

Necrology.

JAMES ELLIOT GRAHAM.

Dr. Graham died on July 7th at Gravenhurst. He had been a victim of diabetes for many years but his demise was directly due to tuberculosis, for the benefit of which he spent some time in the South just before his death.

He was born in Toronto, in 1847, and received his education in that province, Toronto University giving him the degrees of M.B. and M.D. He served one year in the Brooklyn City Hospital and without rank in the Prussian army in the war of 1870. After study in European cities, he returned to Toronto to practise and was made professor of clinical medicine and pathology in 1887, and five years later lecturer on dermatology in his Alma Mater. His work is familiar to the JOURNAL's subscribers. We need only mention that he was elected to the highest honor dermatologists in America have to confer, the Presidency of the American Association. His positions of honor in Canada were too many to enumerate in this limited space; in Toronto, the *Dominion Medical Monthly* says his position was unique. The sympathy of the profession here is extended to our brethren across the line in their bereavement which is ours as well.

Society Transactions.

NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SEVENTY-SEVENTH REGULAR MEETING, HELD ON TUESDAY,
MARCH 28, 1899.

DANIEL LEWIS, M.D., *President, in the Chair.*

A Case of Prurigo Mitis (Hebra).—Presented by DR. JAMES C. JOHNSTON.

The patient was a boy, 4 years old, who was born in the United States, of Italian parentage. He had an eruption on the extremities, the lesions being perfectly characteristic of the mild type of prurigo, as described by Hebra. The boy's mother states that the eruption had existed, practically, since his birth.

The extensor surfaces of arms and legs, buttocks, and sides of neck, were covered with the tiny white or excoriated papules. The skin was much thickened and showed deepening of its lines (quadrillage). Outside of diseased areas, it showed slight desquamation. Improvement occurred under warm baths and inunction with sulphur ointment.

DR. JOHNSTON called attention to the fact that White of Boston was responsible for the statement that this disease was only seen in this country in children of foreign parentage.

DR. H. G. KLOTZ said the case seemed to be a very mild one. There were a few papules on the arms—hardly enough, however, to base a diagnosis upon.

DR. E. B. BRONSON thought there was no doubt about the diagnosis, which could safely be based upon the history of a persistent pruritus affecting particular locations, especially extensor surfaces, and beginning in early life. Such a history was sufficient without regard to special lesions.

DR. G. H. FOX said he agreed with Dr. Bronson that the case was one of prurigo of the mild type, which was not infrequently met with in this country. The diagnosis depends upon the early development of the trouble, and the persistent pruritus, with or without the whitish papules. The case under discussion was of a very mild character, but the speaker thought it justifiable to apply the term prurigo to it. In cold weather, the term pruritus hiemalis has been applied to some of these cases.

DR. C. W. ALLEN said that during recent years he had seen a few cases of prurigo every year, and those in which the diagnosis could be well established were always in children of foreign birth. He failed to recall a single instance in a native-born child, although there was one such in which he had made that diagnosis provisionally; the child was too young to make the diagnosis positive.

As regards prognosis, Dr. Allen said he thought these patients got well in this country and that for this reason the early diagnosis might not be at fault in children who subsequently were found free from signs of the disease.

DR. KLOTZ said he could not agree with Dr. Fox that only a single case of prurigo ferox had been reported in this country. The speaker said that he had shown such a case some years ago, and he recalled another case which had been under his observation. Of the mild type of prurigo, Dr. Klotz said he had shown several cases in children before the Society, but the disease did not develop until the seventh or eighth year. One of those patients, a girl, whom he saw several years afterwards was then entirely free from the disease.

DR. ALLEN said that at the meeting of the American Dermatological Association in Boston, one of the Boston men, as he remembered it, showed a case of prurigo ferox, and in discussing it, Dr. Zeisler said he had seen cases in Chicago in native-born children. Others present recalled similar instances.

DR. S. SHERWELL said that about twenty years ago he showed a case which he regarded as prurigo ferox. The patient was a girl, seventeen years old, and born in this country. It was considered a typical case of the disease, and none of the members who saw the patient at the time criticised the diagnosis. The case was a very aggravated one; the speaker said he could not offer the patient any hope and had lost sight of her long ago.

DR. JOHNSTON referred to a case of prurigo ferox which Dr. Morrow had shown last winter. The patient was a negro, who was born in this country and had always lived here. In that case the diagnosis was generally accepted.

DR. FOX, in speaking of the milder form of prurigo, said he had seen a number of such cases in native-born children of Irish parentage.

DR. SHERWELL said the patient he had referred to had enormously enlarged inguinal glands—as large as walnuts.

DR. P. A. MORROW said he was convinced that the records of the N. Y. Dermatological Society would show that many cases had been presented as prurigo and accepted as such. Probably as many as twenty cases of prurigo ferox would be found on the records. Dr. Morrow said the general impression has been that prurigo ferox was not seen in this country in its typical develop-

ment, and that the cases that were observed here represented a milder form of the disease.

DR. E. B. BRONSON inquired whether the majority of the members regarded the so-called prurigo papule as an essential feature of the disease? In reading Hebra or Kaposi one would suppose that it was essential, while others teach that it is simply secondary, and may be met with in connection with other irritative conditions of the skin. The tendency was to attach less and less importance to it as an essential diagnostic feature.

DR. ELLIOT said he thought that one of the most important features in the diagnosis of prurigo was the history. The eruption begins in early childhood, and continues, with exacerbations, during the life of the patient. The presence or absence of colorless papules was of less moment. In lichen simplex, lichen agrius, and in papular eczema it is not uncommon to find papules, white and colorless, sometimes small vesicles, but we never dream of calling such an eruption a prurigo. The history of the case is the one feature upon which the diagnosis is made—the presence of itching or colorless papules being far less important.

DR. KLOTZ said that in a well-developed case of prurigo these papules were usually obscured by the scratching. He considered the presence of these whitish papules, together with the history of the case, as the essential features of the disease.

DR. SHERWELL said he had always regarded it as curious that this disease should be confined to a certain area—Austria and Southern Germany, and he saw no reason why it might not occur in other locations and races.

DR. KLOTZ asked Dr. Elliot whether the papules to which he referred as occurring in eczema, lichen simplex, etc., showed the same microscopical features as those seen in prurigo.

DR. ELLIOT replied that there was absolutely nothing of a definite character found in the microscopical examination of these papules. The speaker said he looked upon prurigo as a neurosis, the occurrence of papules being merely an incidental condition, and resulting from the scratching of a skin which is predisposed to the formation of such lesions on account of the existing neurosis. Certain persons may have a skin, which, upon scratching, develops a papule. Riehl of Vienna, has come to the conclusion that there were no changes in the papule or prurigo which were not found in ordinary urticarial lesions; other investigators claim they have found differences, and do not agree with him.

REPORT OF CASES PRESENTED AT PREVIOUS MEETINGS.

DR. GEORGE T. JACKSON reported that his case of dermatitis exfoliativa, which he had presented at a meeting of the Society last spring, had recovered entirely after remaining in the hospital for six months. She made a good recovery under simple treatment, chiefly care and good diet. Dr. Jackson said he had seen the patient once since she left the hospital, and there had been no recurrence.

DR. FOX said that two months ago he presented a woman with a papular eruption in the axilla and upon the pubes which had existed for a year or more, and had been attended with intense itching. The lesions in the axilla were almost warty in appearance, with a number of isolated patches at the margin, and had suggested the diagnosis of lichen ruber (or pityriasis rubra pilaris). Chrysarobin was applied, with slight curative effect. The diagnosis, Dr. Fox said, was still doubtful in his mind.

DR. ELLIOT said he had suggested at the time that the case was one of Darier's disease, which he still thought possible.

DR. SHERWELL said that several months ago he showed two cases of leucoplasmia oris which he had successfully treated with the acid nitrate of mercury. He had seen one of the patients again a few days since, and had found no signs of any recurrence.

DR. JACKSON said that four or five years ago he had presented an Italian girl with a large fibrous naevus involving one side of the face and neck. He had seen her again recently and was interested to observe that the naevus had increased in size in proportion to the growth of the child.

DR. ALLEN said that at the previous meeting of the Society he had shown a young woman with an epitheliomatous patch on the forehead and another on the lip. The lesion on the forehead he treated with arsenical paste and that on the lip with electrolysis. Dr. Allen said he would report later regarding the final outcome of the case, but he wished to state that thus far the electrolytic treatment seemed to have proven more satisfactory than the arsenic.

DR. JOHNSTON said he wished to report a typical case of cherro-pompholyx which had recently come under his observation, the disease being limited entirely to the palm of the left hand. There were a considerable number of vesicles, some of them impetiginous in character. The patient stated that the present attack had lasted five months, the disease having been confined to this one location.

Treatment of Erythematous Lupus.—DR. ELLIOT said that about six months ago Hans Hebra suggested the use of applications of pure alcohol in lupus erythematosus, and reported that he had cured four out of five cases in which he had resorted to this treatment. He showed his cases at the Vienna Dermatological Society. During the past month Dr. Elliot said he had been giving this remedy a trial in two extensive cases of lupus erythematosus which had for years resisted other methods of treatment, and the results he had thus far obtained were very gratifying, some of the lesions having disappeared entirely, while others had greatly improved. The treatment simply consists of the constant application—perhaps forty or fifty times daily—of pure (ninety-five per cent.) alcohol, to which a little menthol can be added. The treatment, Dr. Elliot said, was well worth a more extended trial. The applications of the alcohol do not give rise to any inflammation.

DR. A. R. ROBINSON said he had employed the treatment in three cases, making three applications daily, each of ten-minutes' duration. No satisfactory results were obtained.

DR. MORROW said he had successfully treated two or three cases of lupus erythematosus with a combination of menthol and alcohol. In those cases, the speaker said, he had regarded the menthol as the active curative agent.

DR. MORROW said there were numerous remedies which might cause lupus erythematosus to disappear. Last spring he saw three cases in which the lesions disappeared under the influence of lotio alba, followed by mercurial ointment, but he hardly thought there were permanently cured.

DR. ALLEN said he thought alcohol was a pretty good remedy in several skin affections. He has found it effective in simple herpes as an abortive remedy if the applications of strongest alcohol are made frequently. In acne rosacea as well as in acne vulgaris he has also found it beneficial.

DR. SHERWELL said he had successfully treated one case of lupus erythe-

matusus by means of *lotio alba*; this was over twenty years ago and the patient has never had a recurrence. In that case the lesion was exactly similar in location and extent to those pictured by Dühring, resembling in a general way a butterfly with its antennæ. The lotion was of the usual strength, combined with camphor water and alcohol. Possibly, the speaker said, the alcohol was the curative agent in the mixture, although he had never so regarded it, and does not now believe it to be the case.

DR. ELLIOT said he had no idea of advocating the idea that the application of alcohol was a specific in lupus erythematosus. In a discussion of this subject at Princeton last June, the speaker said he had made the assertion, based on his experience, that cases of lupus erythematosus get well of themselves as often as they do under the influence of any therapeutic means we employ for that purpose. He had merely brought up this subject at this time in order that others might give the alcohol treatment a trial.

DR. BRONSON inquired whether any of the members had had any success with Fowler's solution, in full strength, as an external application in lupus erythematosus?

DR. ELLIOT said he had used it in eight or nine cases with no other result than an irritation of the skin.

DR. JACKSON said he had used it in half a dozen cases, with the same result as Dr. Elliot.

DR. BRONSON said he had used it in one case of lupus erythematosus of the ear with very favorable results. In another case it caused considerable irritation without benefit.

DR. KLOTZ suggested that the cold produced by the constant evaporation of the alcohol might play some part in the cure.

DR. ROBINSON said he had frozen the lesions of lupus erythematosus with chlorid of ethyl for several minutes at a time, for many times, with some benefit, but never effecting a cure, therefore, he did not look upon cold as the beneficial agent in these cases treated by alcohol.

DR. KLOTZ said he had used Fowler's solution externally in a case of lupus erythematosus involving both ears, which had been presented to the Society, with a fairly satisfactory result. The remedy caused some irritation, but certainly seemed to prevent the disease from spreading. After a longer absence the patient had recently returned to the dispensary and asked for the same treatments which she declared had done her more good than any other one.

DR. SHERWELL suggested that the favorable action of Fowler's solution might perhaps be attributed to the fact that the arsenic was dissolved in alcohol.

DR. JOHNSON referred to the fact that Unna had strongly advised against the use of greasy applications in erythematosus lupus.

DR. ELLIOT said the same advice should be followed in the treatment of many other skin diseases.

Treatment of Ungual Trichophytosis.—DR. JOHNSTON said he wished to report a remarkable therapeutic result in a case of trichophytosis of the nails in which the diagnosis had been verified by the microscope. The disease involved four nails of one hand, and three of the other, and had proven very obstinate to treatment. Under application of pure iod'in in a saturated solution of potassium iodid the lesions had entirely disappeared on one hand, and those on the other hand had greatly improved. The treatment was begun last December. Dr. Johnston said the mixture he used had the additional merit of producing

very slight discoloration. The effect is probably due to the large proportion of iodine in solution.

Demodex Folliculorum.—DR. J. A. FORDYCE said that recently Dr. Holder and he had examined two cases of rosacea microscopically, and had found a large number of demodex in the sebaceous glands. He had also examined sections of pigs' skin in which the skin was literally riddled with abscesses caused by the demodex. He had obtained the latter from the Bureau of Animal Industry at Washington.

DR. ELLIOT said a case of papulo-pustular eruption had been reported where the eruption was attributed to the presence of the demodex.

DR. JOHNSTON said that at the recent Italian Congress two cases were reported where the demodex had produced a discoloration of the skin clinically identical with pityriasis versicolor.

DR. ALLEN said that about two years ago he had presented a woman with peculiar lesions on the face, which looked like those of molluscum contagiosum, and in which, microscopically, the demodex were found, alive and kicking. The speaker said he had never before seen this parasite in lesions of that character, and had never observed them in a state of such activity. He had long suspected that an organism of the size of the demodex must produce some pathogenic effect on the skin, and was surprised that authors had so long insisted upon its absolute harmlessness.

DR. KLOTZ said he had recently heard in another medical society that this insect had been found by an ophthalmologist to be the causative factor of some affection of the eyelids. There was an eruption on the lids which rapidly disappeared upon the removal of the demodex.

Impetigo Contagiosa.—DR. ALLEN reported the following cases of impetigo contagiosa which had recently come under his observation, which showed the importance of pediculi as an etiological factor in this disease. The first patient was a young man—quite a society man—whose scalp, face, and arms were covered with the lesions of impetigo contagiosa. Nits were found in his head. He stated that some weeks before he had slept with a girl, and since then his scalp had been itchy. Subsequently this girl was found to have marked pediculosis. A few days later, Dr. Allen said, a friend of the first young man came to him with exactly the same condition, and, in addition, a condition of paronychia which had completely involved the thumb-nail so that it was afterward shed and partly involved some of the other nails. Soon afterwards, the mother of the first young man presented a beginning impetigo of the neck, and within three weeks the father of the second young man showed a similar, single, bullous lesion on the wrist, which healed rapidly under applications of a solution of silver nitrate. No pediculi were found in the latter instance, but the cases illustrated how pediculi may start a chain of impetigo contagiosa which will go through an entire family, even in persons who observe more than the ordinary rules of cleanliness.

In reply to a question, Dr. Allen said that when he used the term impetigo, he referred to impetigo contagiosa. He had rarely seen what he could regard as the simple impetigo of Duhring.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON GENITO-URINARY SURGERY.

Tuesday Evening, May 9, 1899, 8.15 o'clock.

G. K. SWINBURNE, M.D., *Chairman.*

ORDER.

PRESENTATION OF NEW INSTRUMENTS, SPECIMENS, AND CLINICAL CASES.

Double Taper Steel Sound.—By EDWARD L. KEYES, JR., M.D.

DR. KEYES said that the sound he wished to present to-night was no novelty for it was devised some two or three years ago by his father, Dr. Keyes, Sr., and had been used in his office constantly since then, and he showed it for him rather as an instrument which had done good service in his hands and with which he was very well satisfied. Other similar sounds had been devised and they all had for their object the avoidance of overstretching the meatus unnecessarily, the idea being that you may stretch any internal stricture a little more comfortably if when you reach the larger size you are not disturbed in your manipulation by the restriction of a tight meatus, besides which the patient's feelings come into consideration, and this sound, which holds its maximum caliber for only a short distance, can be slipped quickly through the meatus, and if the stricture is rather deeply in, as it usually is, the patient has no feeling of tension on his meatus and that element of pain is obviated through the greater part of the manipulation. The instrument, therefore, is an ordinary conical sound as far as the "heel" of its curve. Thence it holds its largest caliber for a little over an inch, then immediately begins to grow narrow again until it reaches about 2 inches further back a caliber which is some 5, 6, or 7 sizes (American) less. There were several other instruments of the same kind on the market. Dr. McKeehan had devised a similar sound except that his had its largest caliber from the middle of the beak to where it joins the shaft. Another sound used by Dr. Weir and devised by him some years ago the speaker showed to the members. He said it lost its caliber by an abrupt shoulder. He had used this sound a number of times and believed it needed a little unnecessary force in coming out. That objection was a slight one. The curve of this sound was different from the curve that Dr. Keyes' sound has. He had always used the short Thompson curve with a dip at the end. The Weir instrument had a longer curve and was shorter in the beak.

Sinus Occurring in the Site of a Chancre.—By RAMON GUITERAS, M.D.

DR. GUITERAS said the case was an interesting one. He presented him before the Society of Dermatology and Genito-Urinary Surgery last month. Five months ago he developed a sore on his penis. Six weeks afterwards the regular symptoms of secondary syphilis appeared—headaches, pains in the bones, eruption, mucous patches in the mouth, sore throat, etc., and the chancre, which was

situated in the middle of the dorsum of the penis, was still unhealed. The patient was put on a regular treatment of mercury and was kept on it for two months. The surface of the chancre healed, but the nodule remained about the same size, and a little sinus remained opening into it. On entering this sinus the probe went down almost to the urethra, extending down about half an inch, so that it was thought by one of the assistants to connect with the urethra, and as the patient had had an attack of urethritis at the same time as the initial lesion, it seemed possible that the sinus might depend upon the gonorrhea and prove to be a peri-urethral fistula. Some of the gentlemen, perhaps, might remember him at the Genito-Urinary Society, when he was considered rather a unique case and there was a good deal of discussion upon it. He concluded to lay open the lesion as it seemed to him that the induration extended down beneath the deep fascia of the penis between the corpora cavernosa, so about one month ago and four months after the lesion appeared he inserted a knife into the sinus and incised the chancre. On the following visit the lesion resembled the two halves of a strawberry, each side being red and granular. The wet dressing of black wash was continued for three weeks, at the end of which time the lesion was healed. During all the time that the lesion was in this condition the patient suffered a great deal of pain when he had erections. After the sinus was opened this ceased. He presented him as a rare case, where it was necessary to use the knife in order to cure an initial lesion.

New Urethral Dilator.—By OTIS K. NEWELL, M.D.

DR. NEWELL said that this instrument which he called a urethral dilator was designed for the purpose of treating strictures with a caliber varying anywhere from the point of permeability up to 14, 16, or 18 French, and thus making all strictures of that caliber amenable to the method of treatment by gradual dilatation. The instrument combined a number of well-known principles, some of them embodied in former instruments. It consisted, as they would see, of a split guide or staff, which followed the ordinary filiform guide with which they were all familiar, this guiding-staff being screwed into the filiform and then introduced through the stricture into the bladder in the ordinary way. This divided staff was the guide for the dilators, which were passed down over it, and which consisted of a hollow tube-like construction varying from the first size of 14 to about 26 on the French scale. At the lower part of this dilating staff there was a central plate which, when the hollow staff was introduced over the guide, passed in between the divided portions of the guiding staff so that this being already within the stricture, the central plate moving within this, the operation of dilating the stricture was reduced to an absolute and mechanical certainty. The only question to be considered, as with the ordinary sounds, was the degree of dilatation which you choose to do at each sitting. As he had originally constructed this instrument he thought the dilating would have to be done with a slight difference at each sitting or greater differences than were represented in the construction of his earlier instruments, but during a use of over eight years he had found that all of those strictures, especially the smaller caliber ones, took without trouble any dilating that did not involve more than 6 to 8 millimeters, and that it was born without particular discomfort to the patient, and if carefully done even without any bleeding.

Another factor in making this instrument was the determination of its length. It had been his experience and belief that a great many urethral instru-

ments, and especially dilators and the divulsors which have now practically gone out of use, were made unnecessarily long. The operating length of that instrument was 7 inches beyond the handle. He had found that even with that length there usually was 2½ or more inches of the instrument in the bladder when the urethra was engaged as a perfectly straight passage on the metallic instrument.

A Case of Lymph-serotum.—By JAMES PEDERSEN, M.D.

The patient is a German by birth. He is 22 years old. Unmarried. A baker by occupation. Four years ago, while his first attack of urethritis was in the subacute stage, he had meatotomy and internal urethrotomy done, under ether. One week later, again under ether, the inguinal glands of both groins were removed. These buboes had been in existence six weeks, and had previously been incised in one or two places. Two months after this he had coitus. On waking up, seven hours later, he found the scrotum enlarged as at present. He does not think it has increased in size since. When exposed to cold when bathing, or when carried in a snug suspensory bandage, the scrotum slowly shrinks, only to regain its usual size when kept covered and not suspended.

Three months ago he cut off the top of a little projecting tab of skin at the base of the scrotum, and a thin yellowish fluid began to exude from it. This ceased after a while. At intervals it recurs, not only from the above point, but from others along the raphi and at the base of the scrotum. He entered our ward at Bellevue Hospital a few weeks ago with an acute urethritis and epididymitis. There is no history of chyluria or of hemato-chyluria. He has never been in the tropics.

The definition of lymph-serotum is "a general engorgement of the scrotal tissues with lymph, caused by some mechanical or physical interference with the normal lymph circulation." I think, therefore, this case can be classified as such, though filaria-sis does not enter into it, and there is as yet no positive evidence of an increasing degree of hypertrophy of the subcutaneous connective tissue and skin. In discussing "lymphatic edema" Bradley mentions that sarcocele—more exactly Egyptian sarcocele—was the name formerly applied to what is now called lymph-serotum. Some may prefer to call it a lymphangiectasis affecting the scrotum; others, a form of lymphangoma.

The practical points, however, are the etiology, the prognosis, and the treatment. The advisability of conservative surgery in dealing with the inguinal glands is pointed by this case. From what the literature on the subject says I think it probable that a condition of elephantiasis will follow eventually. Will ablation of the scrotum promise a good result, both immediate and remote, is the question. The size of the tumor considerably inconveniences the man and he is anxious to have relief.

DISCUSSION ON DR. GUTERAS' CASE.

DR. PEDERSEN said he had nothing but favorable criticism to make. There was nothing to do but to afford free drainage, and as the sinus happened to be the seat of the chancre, the chancre had to be incised.

DR. SWINBURNE said he remembered seeing the case he thought about six weeks ago and with the sinus. He congratulated Dr. Guterus on the result.

DISCUSSION ON DR. PEDERSEN'S CASE OF LYMPH-SCROTUM.

DR. KLOTZ said he was convinced that this enlargement of the scrotum had been caused by the extirpation of the glands and that such encroachments of the lymphatic circulation were not so very rare after that operation, particularly where efforts had been made to close the wound by primary or secondary suture. In fact such swellings occurring on the scrotum had actuated Professor Riedel of Jena (now Goettingen) (*Archiv f. klin. Chirurgie*) to warn against operating by extirpation of the so-called strumous buboes because it was liable to produce disturbances of the lymphatic circulation. The speaker had had some experience with the extirpation of these enlarged glands having within the last twenty years operated on certainly not less than 200 cases. He very soon came to the conclusion that it was much better to treat the wounds openly and let them heal by granulation rather than try to quicken the course of healing by sutures. In none of his patients had he had any trouble with edema or lymphatic obstruction in the scrotum, but he had seen several cases of edema of the legs and scrotum which extended over some time, in cases which had been operated upon by other surgeons. If primary or very rapid closure of the wound takes place the skin will closely adhere to the underlying tissues and leave no space for the accumulation of fat. Professor Bayer of Prague, has shown the importance of the preservation of some of the surrounding fat-tissue by proving that new lymphatic ganglia are formed from the fat. The speaker, therefore, believed that it was advantageous to leave as much room as possible for the formation of new fat-tissue, which was more likely to occur where there was sufficient granulation tissue. For the same reason it was advisable to operate as early as possible, at a time when some fat was left over. It was peculiar to this variety of bubo that the fat very rapidly disappeared and that after a very short time you found the lymphatic glands firmly annexed to the fasciæ and other underlying tissues and closely attached to each other, usually forming one large tumor.

DR. KEYES said in regard to the feasibility of the operation he would like to ask Dr. Pedersen if anybody had definite knowledge as to whether there would be much obstruction to healing in such a case. He had seen but one such operation and that patient died so rapidly there was no question of any healing. He should think himself there would be some obstruction to healing on account of the lymphatic exudate, and also unusual danger of infection.

DR. GUITERAS said he had seen a number of cases where there was edema of the scrotum and also of the penis after removing glands from both sides of the groin and he thought it unwise to dissect out these inguinal tumors when they occurred on both sides. He presented a case some time ago to the Genito-Urinary Society, which they probably remembered, where he extirpated the glands on both sides and where for several months after this edema of the scrotum was present. When one began to dissect out inguinal glands he never knew how far he was going, and whereas in the beginning, the intention might be to dissect out only the superficial layers, it might be found that these were connected with the deeper group, often extending even into the femoral canal. He recalled one very interesting case that he saw in the City Hospital service. The patient came in with an enormous edema of the scrotum and penis, the scrotum extending down $\frac{3}{4}$ of the distance to his knees. There was also considerable edema of the penis. This patient had had his glands dissected out some years ago, since which time his scrotum had been normal excepting when he went off on a three- or four-days'

spree, on such occasions there was a recurrence of the edema of the scrotum and penis, necessitating several days' rest in bed before the swelling went down.

DR. SWINBURNE said he had seen a number of these cases where the edema of the scrotum was merely temporary, following extirpation of the glands from both sides. He had never seen one last so long. He thought from the appearance of the cicatrices that the wounds had healed by granulation and had not been sutured. Dr. Klotz had spoken about the possible difference between suturing and healing by granulation.

DR. PEDERSEN said he would like to refer to the question which Dr. Keyes very properly raised. It was what he had in mind when he asked whether ablation of the scrotum in this particular case was likely to be followed by a good result. In other words, whether we are likely to get primary union, and if we did get primary union, whether it would save this patient an elephantiasis of his scrotum later on. The speaker said he should be very glad to have an expression of opinion on these points. He was inclined to agree with Dr. Keyes in thinking that primary union would probably not result. There would probably be an exudation of lymph that would interfere with the healing.

The speaker said he must of course fully agree with what Dr. Klotz said. It was a very valuable point to know that if we allowed these wounds to heal by granulation we should not have a permanent lymph-scrotum. This case having lasted four years the author thought it was likely to be permanent. It would be seen that this case was carefully sutured. The cicatrices were exceedingly neat in appearance. (It was subsequently learned from the patient that the wounds had been sutured at the time of the operation.)

DR. SWINBURNE said he could not have examined the case thoroughly then, for the cicatrices seemed to him large, anyhow he had seen wounds which had healed up from the bottom, in which the cicatrix was quite as small as in the case presented.

DR. KLOTZ said you could not judge from the scar. The skin was so easily attracted in this region. Even if you had an opening of two or three inches in length you finally got a linear scar in most instances.

DISCUSSION ON DR. KEYES' DOUBLE TAPER STEEL SOUND AND ON DR. NEWELL'S DILATOR.

DR. VALENTINE said that theoretically it seemed to him that some objections might be made to this sound. When considering the most frequent purpose of a urethral instrument, the obstacle of a tight meatus must be given due weight. An instrument that passed the meatus easily, ordinarily lay too loosely in the urethra to exercise an appreciable effect, or only slightly the dynamic influence, that Guyon describes. This naturally was limited by the size of the meatus and the posterior boundary of the fossa navicularis. It therefore seemed that in such cases no sound could take the place of the dilator.

Moreover, although those sounds were graded in size, those fine gradations reached in chronic urethritis could not be accomplished by any instrument except one that enlarged within the urethra, and he regretted that he failed to see its practical advantages over other instruments.

The speaker said that, obedient to the instruction of their Chairman, he would take the liberty of devoting a few words to Dr. Newell's ingenious and interesting instrument. He was under obligations to Dr. Newell for having left it with him

for a week before this meeting. No appropriate case, however, had appeared. He, therefore, could offer no practical experience with the instrument, consequently his remarks on it could not be other than theoretical.

It seemed to him that if we could get a filiform through a stricture or a series of strictures, we should have accomplished all that the emergency required. By fastening the filiform in place and so leaving it for twenty-four hours, we should be able to insert easily one, three, four, or even five or six numbers larger. Meanwhile the bladder would relieve itself alongside the instrument and with none of the danger of hemorrhage *ex vacuo* that sudden emptying of this viscus entailed.

Not only the speaker's private but dispensary practice confirmed this view, based upon experience in the largest genito-urinary clinics in the world, at Berlin and Paris. There where a way can be found through a stricture, no one would think of anything but gradual dilatation by the Verweilsoude or *soude à demeure*.

The use of the instrument was, therefore, not at all evident to him. He considered it unfortunate that Dr. Newell designated it as a dilator; in reality it seemed a most ingenious modification of the old divulsor, now happily seen only among ancient curiosities.

It also seemed to him that when the larger instrument was passed along the metal guide, it would be likely to engage within the distal orifice of a stricture. If the stricture were not of a very tough kind it naturally would be crushed apart by the passage of the instrument. What was that but divulsion? If, however, the stricture were a tough one, it seemed to him that it would not yield, but by the great force employed be dragged and drag with it the urethra, as the instrument was pushed toward the pubes.

The speaker confessed that these were only theoretical objections. He should test the instrument and if it proved him in error he should not hesitate to avow the fact.

DR. J. VAN DER POEL said that as regards Dr. Keyes' sounds he had never had any personal experience with them. He could imagine, however, a class of cases where they would be applicable and very serviceable, where we had a deep stricture to deal with, together with a narrow meatus and when the patient was unwilling to have a meatotomy performed. In fact this instrument would then render this operation unnecessary. If a sound were being used for chronic urethritis, he did not think that this one would answer the purpose as well as the ordinary conical instrument, which stretches the urethra throughout its entire length up to the size necessary and remains so until its withdrawal, unless the seat of chronic inflammation were localized in a situation which we knew by previous examination, endoscopic or otherwise, would correspond exactly to the enlargement on the sound, for, as we know, the pressure of a full-sized sound is necessary to empty the follicles of their contents, besides which it sets up a reactive inflammation in the areas of infiltration and restores tonicity to the over-distended vessels.

As to dilatation of stricture by means of the instrument which Dr. Newell had just shown—when the stricture is a large one—that is, over 15 or 18 French, the speaker said he could scarcely see any advantage in it over the usual conical sounds, of the usual curve, besides being complicated; and when the stricture was of small caliber, *i. e.*, below 15 French, he thought the simpler and perhaps safer instrument would be Guyon's adaptation of the Beniqué instrument, that is, with a guide passed through the stricture to the bladder. The Beniqué sound is

screwed on to the guide and then passed through the stricture itself, the guide coiling up in the bladder.

In cases of retention he could imagine where it would be extremely useful, but here again he could hardly see the advantage of it over the modified Beniqué.

DR. PEDERSEN said that regarding Dr. Keyes' sound he felt about it as Dr. Van der Poel did.

Regarding Dr. Newell's instrument for dilating strictures: The speaker thought it was an ingenious one, handsome in its mechanical construction, but too complicated. When it came to a urethral instrument he thought the simpler forms were the better; in his opinion nothing excelled the ordinary filiform of extra length over which one threaded a tunnelled instrument. What Dr. Valentine had said about tying the filiform in and leaving it to exert its dilating effect and thus empty the bladder—that of course they all knew and practised; but speaking only on the subject of progressive dilatation he would say that he preferred the filiform of extra length introduced until most of it was coiled up within the bladder, only a few inches remaining protruding from the meatus. Over the filiform the tunnelled sounds were threaded one after the other until the desired dilatation for that particular sitting had been accomplished. As the tunnelled instrument was slipped along the filiform, the penis was kept moderately on the stretch and the filiform was slowly drawn out to prevent it from kinking. Hence the value of the extra long filiform.

Another point—suggested by the photographs presented by Dr. Newell. Dr. Newell claims that this little instrument has sufficient length. The speaker said he was not so sure of that. He was a firm believer in putting the penis on the stretch when passing an instrument through a stricture. He agreed with Dr. Valentine that this instrument was likely to carry the stricture ahead of it. It certainly was apt to do so if in using the instrument the penis had to be telescoped to the same degree as shown in these photographs. In his opinion the penis should be on the stretch so that the stricture was held while the instrument was passed through it.

DR. KLOTZ said he agreed with Dr. Van der Poel regarding both instruments. He believed that the tapering sound was useful in a number of cases but in how many would depend largely upon the importance and signification which might be attributed to the narrowness of the meatus—a question into which it would not be proper to enter here.

The speaker said he had also had some experience with instruments similar to those which Dr. Van der Poel had described—the filiform bougie screwed to the metal sounds of various caliber. It had been known to him as Dr. Le Fort's of Paris, who acknowledged to have shaped it after an instrument invented by a Dr. Hunter of New York.

This instrument the speaker said had done him very good service in a number of cases, particularly when the instrument was in strictures of the membranous urethra, where apparently Dr. Newell's instrument might not be easily applicable.

DR. CHETWOOD said he would like to offer his testimony and experience as regards the usefulness of the sound shown by Dr. Keyes. He did not think that its value could be appreciated until used. He remembered Dr. Keyes saying when this sound was first constructed, that he had had it in mind for some years. We had it constructed and since he has used it he has often said that he is much pleased with it and wondered that he had not put it into use long before. Dr. Chetwood thought the sound filled all the requirements that a steel sound could

fill. If the meatus is exceptionally tight we would naturally perform meatotomy, but in a great many instances there exists an internal constriction not sufficient to perform meatotomy but enough to cause a great deal of pain during the process of dilatation.

In regard to dilatation generally he preferred the steel sound to any other means of dilatation. He did not think that any instrument was more wieldily or more satisfactory to extrude through the constricted portion than the steel sound. It did not have the tendency during introduction to carry the meatus along with it, while the other dilators generally used seemed to have the objection raised by many of having a tendency to overdistend other portions of the urethra besides the constricting portion, and he did not think that any dilating instrument was less painful than the smooth steel sound. One of the Kollmann instruments was constructed with the irrigating attachment so as to combine the process of dilatation with irrigation of the urethra, but he thought that these procedures used consecutively were just as efficacious as when used in combination.

DR. GUITERAS said he thought Dr. Keyes' sound an excellent one.

In regard to Dr. Newell's instrument, when he first saw it he was inclined to be unfavorably impressed with it and thought as did Dr. Valentine that it was more of a divulsor than a dilator. He also thought it was a complicated affair; but he had had an opportunity of seeing Dr. Newell use it on several occasions with the best of results, and in his hands it was anything but complicated, anything but difficult to use. It slipped in very easily in connection with its guide and of course occupied a very small space in the urethra. The little central dilating wedge that the doctor inserts, glides along its split shaft easily and seems to give the patient no pain. He had seen him treat patients in this way five or six times, patients who had very small strictures, and the results were very satisfactory.

DR. SWINBURNE said he was inclined to agree with Dr. Chetwood as regards the double taper steel sound—everything that he had stated. He himself, in urethral work where dilatation was to be used, was rather inclined to prefer the steel sound, and there was one point that Guyon had called attention to some little time ago and that was that a much smaller sound than would go through a stricture would cause a dilatation, and that the speaker said he had found to be true; and in the last few years he had used very much smaller sounds than he had ever used before and found that the results were quite as good, if not better. He thought rather better because it seemed to him more comfortable to the patient.

DR. KEYES said he did not think he could do any better for his own cause than to get in line with the Chairman and Secretary, who had really closed the discussion from his point of view for him. He really could not understand why the sound with a maximum circumference extending a fraction over an inch should not be quite satisfactory for chronic urethritis as well as for any stricture. In Dr. Keyes' office it had always been found so.

As regards the question of dilatation by a sound, as against a dilator, it was rather too wide a question to come under this small heading. Guyon was a believer in the dynamic force of small instruments, he knew, but the speaker did not believe he ever used a dilator himself. He had attended his clinics, and though he had never heard him express his doctrine on the subject, he had observed his custom was to use the steel sound.

DR. NEWELL said in relation to the sound shown by Dr. Keyes, that the same principle was used in his (Dr. Newell's) instrument. He thought without question that that form of sound was of great value where prolonged tension would

otherwise be put upon the meatus, which, as was suggested, was more painful at that part than any other point of the urethra.

The speaker thought nothing shaped an instrument so quickly as candid criticism. He was glad to hear criticism of his instrument. There were two ways of looking at an instrument—from a theoretical and from a practical standpoint. In practice the use of this dilator had been something remarkable. Since he had used it he never had had to perform internal urethrotomy. He had had many patients sent to him with partial or complete retention. He had often worked for one or two weeks with the filiform before he got through the stricture and into the bladder.

As to its being too complicated, he thought that would have been a good criticism of an instrument before the days of asepsis, but now no complication was any objection to an instrument provided it could be made aseptic by the moist or dry processes and worked satisfactorily. Of course all instruments that could be subjected to boiling could be rendered aseptic.

Another point was brought out, which was an important one, in regard to the possibility of this instrument impinging upon the stricture and practically invaginating it and carrying it before the dilating staff into the bladder. That accident was a very rare one. One of the most learned professional men in Boston, Dr. W. C. B. Fifield, told the speaker he had once seen it in Paris, and the autopsy of the case, where the stricture was so tight that the staff of the divulsor had carried it into the bladder. Personally he had never known this to occur although he had known of one instance where a divulsor itself was forced through the bladder. His own instrument was designed to make such accidents as this impossible. The guide was split in halves and, when you began dilating, was already introduced through the stricture. The central blade must pass in between the divided halves of this guide and, therefore, operating as a double inclined plane made the dilating absolutely positive and of the most gentle nature. It might be regulated to the millimeter by introducing a part or whole of the dilator at a time.

In regard to introducing a filiform into the bladder and relying upon it as a method of getting rid of a sufficient quantity of urine to avoid a serious disaster in retention, that is extravasation of urine, there was no certainty in that method and it could not be depended on, in his experience. For instance if a stricture were very tight and you introduced a filiform it might plug the stricture so that the patient could not be relieved of urine fast enough to prevent extravasation. Where he could not get a filiform through and dilate in order to relieve distension he should prefer to aspirate over the pubes until he determined the stricture to be impermeable. He had never yet had a case where he could not get in a filiform. Sir Henry Thompson had reported only six cases where he failed to get into the bladder.

The speaker said that what he meant to convey in his remarks at first was that this dilator was designed to make amenable to the system of treatment by gradual dilatation all strictures from the point of mere permeability up to a caliber of 16 or 18. He believed it was a well-established fact and all surgeons agreed, that gradual dilatation by the use of metal sounds was the best treatment for strictures of large caliber, but when the caliber was reduced to a point where the size of the instrument to be used made it, if metallic, dangerous from its sharp-pointedness and ready tendency to puncture, and when flexible of such small diameter that it offered very little resistance and practically no dilatation could be accomplished. This method had not hitherto been feasible. It was to overcome these conditions that his instrument was designed, and in his ex-

perience, which had extended through eight years, he had never been obliged to use any other method for treating this class of strictures, and when a stricture got up to 16, 18, or any compass where he could use ordinary sounds, he always took them in preference to the dilator.

Dr. Valentine had referred to other forms of dilators, which the speaker thought were very good instruments, but he had never seen any of them so constructed that they could be used on a stricture less than 16 or 18 caliber, and when up to that caliber the strictures could be generally treated by steel sounds and the ordinary method.

DR. GUITERAS then read a paper, entitled

A Report of Twelve Cases of Prostatic Hypertrophy Benefitted by the Bottini Operation, with a Few Comments and Suggestions.

The author gave in detail the histories and operative procedure in twelve cases operated upon by him by means of the Bottini instrument. All the cases showed improvement following the operation, and in none was there any serious accident.

Practically the same technique was followed in each case, in nine of the cases a four-per-cent. solution of eucain was used as the anesthetic, but in the majority there was considerable pain, so that in the last three cases as there seemed to be so much pain produced, and spasm of the urethra prevented the introduction of the instrument, the operation was done under the influence of nitrous-oxid gas with gratifying results.

The author believes that the operation is called for in those cases in which the following conditions occur: Frequency of urination associated with residual urine; an increasing amount of residual urine; a troublesome cystitis due to obstruction; retention of urine associated with catheter life; when tenesmus and irritability are so great that catheterization and vesical irrigation do not relieve; when catheterization is followed by bleeding and bad cystitis. He believes that the earlier the operation is performed the more favorable the results will be, though in cases in which retention occurs and the patient has not been introduced into catheter life, the operation should be postponed till the dangers incident to catheter life have been passed.

A bad condition of the kidneys is a contraindication to the operation, unless their condition can first be improved. He does not think that the presence of calculus with hypertrophy need be a bar to the operation, but thinks that removal of the calculus by the lithotrite may be facilitated by a previous Bottini operation; or if a suprapubic lithotomy be necessary the healing of the wound will be facilitated by the better drainage due to the Bottini.

For an anesthetic, the author advocates the use of nitrous-oxid gas, finding that where the bladder is filled with boracic-acid solution, eucain as a rule has proven inadequate, and in cases in which there was spasm in the urethra which was difficult to overcome, this has given way under the nitrous oxid. Then too, the gas is less dangerous than either ether or chloroform. One cylinder of the gas has sufficed for three operations.

Steps of the operation: The patient having been prepared as for any operation of the bladder, the rectum having been washed out, is placed on the table, hips raised, a catheter is passed and the bladder washed until the water runs clear; eucain four-per-cent solution is then injected into the bladder and posterior urethra through the same catheter; six ounces of boracic-acid solution is then

injected into the bladder and the incisor passed into the bladder. If the incisor is prevented by spasm from entering, he administers the gas. The cable from the battery is connected with the incisor, and the instrument turned so that its beak points downward, and the tip is felt for with the finger of the operator in the rectum, the handle of the incisor is raised, rather than depressed. The water in the cooling apparatus is then allowed to flow. The current is turned on, 40 to 50 amperes. The wheel of the instrument is turned till the knife has traversed the required distance, and has been returned to its sheath; the instrument is rotated to a right angle and a similar cut made in one lateral lobe, and then again rotated to take in the opposite lobe.

The length of the cut varies according to the estimated size of the prostate from 3 cm. to 4 cm., for the posterior cut, and 0.5 cm. less for the lateral, and 1.0 cm. less for the anterior cut if one is made.

According to the author, better results have followed in the cases in which he has made an anterior cut with one lateral, than in those in which he has made the two lateral and omitted the anterior cut.

If the operation is followed by retention, a catheter is passed and left in place forty-eight hours, though frequent catheterization is avoided as far as possible.

A striking feature in the result from the operation has been in the improvement in the morale of the patient.

DISCUSSION ON DR. GUITERAS' PAPER.

DR. J. VAN DER POEL said that Dr. Guiteras' paper had been a most interesting one. As the author had said, the literature upon the subject was very slight, and the number of cases reported up to the present time was small indeed, comparatively speaking, so that the histories of the cases which they had just heard would materially aid us in formulating our ideas as to the results to be obtained from the operation. Without doubt it was an operation which had proven in many cases of great benefit, but how lasting that benefit was he thought perhaps it was too soon, at least for those in this country, to state.

There seemed to be several classes of cases where the operation would appear to be indicated: firstly, in a very large number where we have to do with patients who absolutely refuse the operation for prostatectomy; and, secondly when patients are too old, or their organs too unsound, to undergo any major operation. On the other hand, the results of the Freudenberg-Bottini operation being so brilliant, so far as we have gone, the dangers being so few, the mortality so slight, the mortality of prostatectomy being still so great, the results of vasectomy and castration still uncertain, it would seem that, in a majority of cases, we would be compelled to resort to this operation as a primary procedure at least.

DR. PEDERSEN said that while Dr. Guiteras was reading his paper it occurred to him that possibly he had a high temperature in some cases, or a higher temperature in some cases than in others, through failure to have the current strong enough to keep the blade at a red heat when in contact with the tissues. As far as his own experience with this operation had gone, he believed that a current of more than 40 to 45 amperes was required. It sometimes took a current of 50 to heat the blade sufficiently when water was used to distend the bladder, as was the practice since the reported accident which occurred when the operation was done with the bladder empty. The knife might not have been hot enough and thus incised rather than cauterized its way, thus rendering septic absorption possible.

As to the use of general anesthesia. One chief attraction of the operation was that we were able to do it under local anesthesia. This admitted to the operation a certain number of patients who could not otherwise be operated on. If it came to be proven that we had to do the operation under general anesthesia we should have lost an advantage. He was not very familiar with the use of nitrous oxid gas, but he believed that in expert hands it was safe and could be administered for a sufficient length of time to permit the completion of this operation. To get rid of the spasm referred to by Dr. Guiteras we should, of course, have to use general anesthesia. We could use nitrous-oxid gas while the instrument was being introduced, and then go on with the operation, having just previously anesthetized the bladder with cocain or eucain in the usual way.

DR. NEWELL said he had the pleasure of witnessing a number of these operations by Dr. Guiteras. He thought one thing was shown very strikingly in this operation. Those who are genito-urinary surgeons realize that there is much that is disagreeable in genito-urinary surgical practice. Nothing, however, shows more than this operation the fact that no one requires to have more perfect manual dexterity and operative skill than the genito-urinary surgeon. This is, in fact, an operation that is truly done in the dark as far as locating and determining the field of operation of the instrument is concerned. Where the operation is done successfully it is very striking in its results. He had the pleasure of following one of Dr. Guiteras' cases for some time and drawing the man's urine himself and saw that he actually had no residual urine the last time he drew his water. This was a very striking thing to him in comparison with what he had seen in prostatic cases under other methods of treatment.

DR. VALENTINE said the author had stated in beginning his paper, that at first he had kept no records of his cases. Manifestly though the records he did make would help us far forward on the study of the differentiation which would teach us when to employ the Bottini operation, and when to continue with the catheter. Dr. H. H. Morton of Brooklyn, although he reported but five cases some months ago, was the first, the speaker believed, to suggest the advisability, the need, indeed, of making the nice distinction required.

It was perfectly true that the Bottini, done as it was entirely in the dark, required exceedingly fine manual dexterity. But these records of conditions prior to operation and the records of results, such as Morton gave us and such as Guiteras has given us to-night, will lift those of us from the conservatism that seeks relief with the catheter, until we are reasonably sure of what the outcome will be.

A deterrent against universal acceptance of the Bottini operation was shown in the literature. There we see that many cases have died; others have not been improved. Undeniably some have resulted in almost immediate, brilliant success. In some cases the manual dexterity required to sear just enough and not too much through the prostate may have been lacking. But who will question the dexterity of Bottini, Freudenberg, Meyer, Guiteras, Morton, and others, who do not hesitate to publish their failures as well as their successes.

It appears that the operation is still sub judice. Such careful examinations as these authors will make, such histories as they will publish, will teach us which cases we shall sear, which we shall treat as we do now.

Until then we who would be conservative, while fully appreciating the work done by the brilliant operators, will continue the catheter. Much lies in the choice of a catheter and judgment in its use. Of course it was a slavery to be obliged to

use the catheter every four hours or oftener during the day, but it gives our patients more hours of sleep than they could otherwise obtain, and of comfort during waking intervals.

Without insisting that our only remedy was the well-chosen and properly employed catheter, the speaker said he could not banish from his mind several prostasies he saw in Berlin, post-mortem. The catheter, having been used for years, had worn a trough, if you will allow the expression, into the isthmus, enabling the patients to again urinate, if vesical tonicity was not impaired.

The speaker said he looked with deep interest on this paper and others still to come. They would teach us whether the Bottini operation as revived, after sixteen-years' dormancy, was a transient fashion or a remedial measure that had come to stay.

DR. CHETWOOD said he could not speak authoritatively either for or against the Bottini operation as he had had no personal experience with it and did not feel like criticizing Dr. Guiteras' interesting reports of cases on account of the incompleteness of some of them and the absence of certain points important in reaching conclusions, which were withheld on account of the lack of time. It seemed to him that in deciding whether to accept or reject a new procedure upon the showing of cases it was necessary to be in possession of all such details. Dr. Guiteras' paper seemed to demonstrate that the operation was apparently a harmless one, he having had but little reaction in most instances, but that was not the sole question to be decided. As Dr. Valentine had already said, it was also important to determine, assuming it to be a proper operative procedure, in what class of cases was it suitable and in which unsuitable? In some of the cases it might be a question whether the patient could obtain the same amount of benefit with a minor procedure. It did not appear whether each of them had been tried in catheter life. In some instances there seemed to be a reduction in the quantity of the residual urine, yet it did not appear whether there was a relative improvement in the beneficial disturbances. The improvement as regards the residual urine was a good factor but the functional disturbance was more apt to affect the mind of the patient and the amount of improvement attained in this class of symptoms was most important in determining the value of an operative procedure.

DR. FOOTE said he trusted that when Dr. Guiteras published this series of cases he would add some general comments, because no one was in so good a position as himself to draw conclusions from them. He should like to inquire of him why he chose in certain cases to make an anterior incision, and why in others he made a unilateral incision. He should also like to hear him explain if there was any difference to be noted in subsequent results in cases where incision was made in one place and in cases where it was made in another. The improvement seemed to follow pretty generally after all the incisions.

DR. SWINBURNE said regarding the improvement in these cases following the operation, that there was probably no set of cases where it was more difficult to judge as to what would be the result of rest in bed and catheterization after a period of time, as is illustrated by the series of cases published recently in the *Annales*, of which one case coming into the hospital with complete retention and relieved by catheterization it was found that the patient had had no urinary accident for a period of ten years, when he had had an exactly similar experience. He had gone for ten years with no residual urine and no trouble, when suddenly he had another attack. This case had caused the writer of the paper to look up the Necker reports, in which he found that there were several cases in which the periods of time between attacks of retention extended between three

and ten years. The question was, after an improvement after one of these operations how long could we look for a result that was to be a permanent one and could the same result be obtained by other means. Of course these cases with this long interval of time were not very common, but still they did occur, and it was just those cases which often gave startling results when operative procedures were done.

As regards anesthesia, the speaker said he had not had any experience with nitrous oxid gas in urethral work, but had had a good deal in short and small minor operations, having used it for a period of now ten years nearly every day, and with the exception of one or two cases in children that he recalled where respiration had stopped for several moments, there was no accident at all. There were two cases where artificial respiration had to be resorted to. One case he remembered was kept under the gas for thirty-five minutes, the speaker thinking he had a small abscess to open and finding necrosed bone, the operation took a longer time than he had expected, and immediately after the operation the patient came out and his recovery was very complete. He got up and walked away and had no discomfort, as he would after an ether or chloroform anesthesia.

DR. GUTERAS said he did not draw any conclusions after the recital of these cases because he thought it would be better to bring them out in the discussion. In looking up the literature of the Bottini operation, beginning with Bottini himself, he found many cases which had been badly reported. The reports were not such as to give us a clear idea of the condition of the patient when operated on or his condition after the operation. The speaker said he noticed Bottini operated on some quite young cases, one 32 years of age, others at 40, although, of course, the majority of them were old men; but in looking over these earlier reports we find histories something like this: "Patient with enlarged prostate, operated on by the Bottini method; 3 incisions made—posterior, lateral, anterior. The result was very good. The patient left town in two weeks perfectly well. I have heard from his physician three months afterward; patient still doing well." We cannot learn much from a history of that kind. It is not full or precise.

The Bottini operation seemed to the author to work in this way. It relieved the mechanical obstruction by burning furrows through the prostate gland in one or more places; when the eschar and sloughs were thrown off the furrows were made still larger. In addition to this the blood-vessels going through the gland were cut through and seared, which shut off the blood-supply and caused it to atrophy.

Now as to the question of anesthesia. It was very easy to operate on a patient under local anesthesia and if he squirmed, shouted, or cried, to say, "It is not hurting you, is it?" "You don't feel it?" and then after operation say, "that did not hurt you as much as you thought it would, did it?" The patient knows it did hurt. At one operation the speaker said he was accompanied by a man very much interested in the work, who had seen the operation a number of times. The patient was comparatively quiet throughout the procedure, which caused him to say, "that patient stood it pretty well. I went with Dr. — the other day and it took five men to hold the patient." This tends to show that it is not always painless. For this reason the speaker said he advocated general anesthesia—preferably, laughing-gas. In the small portable cylinders such as you get from the White Dental Co. there was enough of the gas for three operations. As in the battery that was used for performing the Bottini operation there was also

about enough electric force for three operations, the two could very well be used together.

In regard to the spasm and spasmodic contraction of the compressor urethrae (the cut-off muscle) and the vesical sphincter, the speaker said he had to state that on five or six occasions he had been obliged to give up the operation because he had no general anæsthetic with him and could not pass his instrument into the bladder. In all these cases he elevated the pelvis and injected eucain, but nothing would relax the spasm.

In regard to the class of cases to be chosen, those best adapted for the Bottini operation were the ones where a hard prostate was present, causing considerable so-called middle lobe obstruction. In these fibromyomatous conditions the prostate does not seem very large by rectal touch, but there is enough of a projection into the prostatic urethra to cause such an amount of impediment that all the urine cannot flow over the top of it. It was easy to see in such cases how the end of the Bottini instrument would stick after it had passed through the urethra into the prostatic portion and was turned up against the vesical sphincter when this vessel was in a state of spasmodic contraction. The author said that very often in doing this operation when he had his instrument catch he put his finger into the rectum and had felt its beak right in the prostatic urethra and yet he could not force it a quarter or a half inch past the impediment into the bladder.

The cases for enucleation were those large prostatic growths, which felt when you made a rectal examination like an apple or an orange. In such cases when you made your incision for enucleation and put your finger in you could get hold of something to enucleate.

The question when not to operate was an interesting one. The most important time when not to operate was when the patient had bad kidneys, either medically or surgically diseased; a severe case of Bright's was contrary to an operation, and also a surgical kidney. The author said he remembered one case which entered an institution with which he is connected, to be prepared for operation. He had cystitis, a pyelitis and some nephritis, but his nephritis was not very marked and the author thought by breaking him into catheter life that it would probably bring his kidneys into a sufficiently good condition to allow an operation. The patient had in his bladder on entering 32 ounces of urine. The author warned the house surgeon not to draw it all off. He detailed one of his assistants to catheterize him, who took it all away, with the result that the patient became uræmic and died about three weeks later. Perhaps he would have died anyway. The author thought if the patient had been more carefully handled, if less urine had been taken away the first time, and if on each succeeding catheterization the bladder was more nearly emptied, that perhaps this patient might have been tided over, and later on by an operation the prostatic impediment might have been sufficiently reduced to produce a beneficial result, if not a cure.

Dr. Chetwood said he noticed he (Dr. Guiteras) had spoken of residual urine, but the great question was the functional disturbance. That was very true. The functional disturbances generally in those cases were, however, those caused by an obstructive cystitis. Of course if we removed the obstruction that did not mean an immediate cure of the cystitis, which had existed for a number of months, or perhaps for years. After the obstruction was removed we then had to treat the bladder for the cystitis present and also to improve its tone, as these bladders were very often atonic.

In regard to Dr. Food's question as to the lateral and anterior incisions and

when we should choose between them, the author said that in all cases where when we examined the patient by rectum, we found a very large prostate, there is generally hypertrophy of the lateral lobes, and if on urethral examination we found there was not so very much prostatic obstruction we could then be sure that this was principally a lateral hypertrophy. Such cases were ones for the posterior and lateral incisions. In the small, hard cases found on rectal examination, where there was considerable impediment found on examination of the prostatic urethra, there was usually a spur of middle-lobe hypertrophy, and if in these cases one lobe of the prostate were larger than the other we should perform first a posterior incision through the middle lobe, where most of the obstruction was, one at the point or anteriorly, and through the larger lateral lobe.

The Chairman spoke of cases being treated by rest in bed and other means and that that always produced considerable improvement. The author said he agreed with the Chairman. He thought a patient should never be operated on for hypertrophy of the prostate until we had done all we could to relieve him by previous treatment, by washing out the bladder, and by all palliative means, both local and general, that we could employ. The author said that some of these cases he had mentioned had already been broken into catheter life.

The amount of residual urine was an indication for the operation, as a general thing. The author thought a patient should not be operated on for hypertrophy of the prostate unless 2 ounces were present. He believed that an amount less than 2 ounces was generally not sufficient to give a patient much annoyance or to cause very bad urinary symptoms. One of these cases operated upon had but 1½ ounces, but as a general thing after they have passed the 2-ounce stage their bladders begin to trouble them seriously. Of course no exact rule could be given. An operation depended more on the amount of functional disturbance present.

Treatment, of course, would bring these patients into much better condition.

The author said that on Friday he went to the City Hospital and saw there a man 68 years old, who was passing urine ten or eleven times a day and thirteen or fourteen times at night. By rectal examination he had marked hypertrophy of the prostate. The author tried to pass the smallest catheter they had in the hospital into the bladder, but without success, as he had a spasmodic contraction of the compressor urethræ muscle or the vesical sphincter. The author could not, therefore, tell whether there was much urethral impediment or not. He put him on hot sitz baths and urinary diluents and antisepsis. He went to see him to-day expecting to arrange for an operation, and carried over some small velvet-eyed rubber catheters. He slipped one easily into his bladder—about a No. 10 French—and only drew off 3 drams of residual urine. He immediately said, "this case is not one for operation." It would be contrary to good surgery to operate on a man in this condition. Of course it would have been a brilliant result as far as the amelioration of the symptoms from the time he entered the hospital was concerned, but to-day's examination had shown that they had already improved under treatment and that now he was only passing urine about four times at night and three or four times during the day.

The author said he thought this little talk had covered all the points and all the questions that had been brought up.

Selections.

1. **Is Eczema a Parasitic Disease?** (A critical study.)—L. TOROK (*Ann. de Derm. et Syph.*, IX., p. 1073, 1898).
2. **The Parasitic Origin of Eczema.**—LEREDDE (*Ann. de Derm. et Syph.*, X., p. 30, 1899).
3. **The Parasitic Origin of Eczema.**—TÖRÖK (*Ann. de Derm. et Syph.*, X., p. 37, 1899).
4. **Critical Essay on the Etiology of Eczema.**—R. SABOURAUD (*Ann. de Derm. et Syph.*, X., p. 305, 1899).
5. **A Note on the Study of the Question of Parasitic Eczema on Account of the Publication of the Second Fasciculus of Unna's Histological Atlas.**—LEREDDE (*Annal. de Derm. et Syph.*, Vol. X., p. 438, 1899).
6. **Seborrhœa Corporis (Duhring) and Its Relation to Psoriasis Vulgaris and Eczema.**—LUDWIG TOROK (*Arch. für Derm. und Syph.*, Vol. 47, pp. 69, 203, 1899).
7. **The So-called Seborrhoic Eczema.**—CH. AUDRY (*Ann. de Derm. et Syph.*, Vol. X., pp. 113, 209, 1899).
8. **A Contribution to the Study of Eczema.**—LESLIE ROBERTS (*Brit. Jour. of Dermatol.*, January and February, 1899).

I. TÖRÖK does not accept Leredde's opinion regarding the parasitic origin of eczema, owing to the following considerations: (1) Speaking of eczema, in order to avoid confusion, it is necessary to give the exact definition by the author cited, and to use the word in the same sense. (2) The impetiginoid lesion, which Unna calls true vesicular eczema or eczema from inoculation, belongs rather to impetigo than to eczema. (3) Consequently even if it were shown, that the micrococcus, which Unna regards as the cause of eczema is really an individualized coccus (which is as yet not demonstrated) and that it is the cause of the impetiginous lesion, by no means would it be proven, that the micrococcus is the cause of plain (banal) vesicular eczema. Moreover vesicles of ordinary eczema only exceptionally contain the micrococcus. (4) The presence of the micrococcus in seats of chronic eczema, shows only a saprophytic and not a parasitic rôle of the coccus. (5) The clinical facts which are cited in favor of parasitic origin of eczema can be differently interpreted and finally (6), up to the present time there is not one single fact established in favor of the parasitic nature of eczema.

II. LEREDDE takes up the last two points and gives the following arguments which lead him to believe in the parasitic origin of eczema: (1) Eczema is auto-inoculable; (2) it develops spontaneously upon fissure of the skin and (3) the multiplicity of its causes, external and internal, the identity of its effects prove the parasitic nature of eczema. The toxic origin of eczema cannot be accepted as there is no anatomical difference between an eczema of external cause and an

eczema of internal origin. The toxic action only modifies the soil of the skin making it suitable for the development of the parasite.

III. Answering to the statement above Torok directs attention to the point, that in speaking of auto-inoculation, development upon skin-fissures and multiplicity of its causes of eczema, we must bear in mind not the eczematous lesion—which is banal—trivial, which can be produced artificially by various causes but the disease which we include in the category of eczema.

IV. The etiology of eczema will be the first debatable question of the next International Dermatological Congress. In order to clear the field of debate of unnecessary, fruitless incumbrances, Sabouraud in a most admirably written critical essay reviews the principal opinions which possibly may be advanced in the debates by the believers in a diathetic and parasitic origin of eczema. When a dermatologist, who is at the same time a logician, is asked, which of the two opinions is the correct one, before answering, he will ask a definition of eczema, and since nobody can give it, then he will require what is diathesis, and again nobody can satisfy his demand. Lastly he will demand a bacteriological analysis of the subject and this has only been done by one single man, who hardly sketched it. From this it follows, that at such a stage of our knowledge of the question no serious opinion can be brought forward and none can be defended, and all discussion of the nature of eczema at the next Congress will be sterile and barren and should be eliminated from the program. What is needed is, that some ten or twenty men present separate monographs upon limited portions of the subject which will bring forward precise facts, clear ideas, without hasty generalizations. The author does not know of any single man who is capable of taking up this question, the solution of which requires pioneer work, leaving the generals temporarily without employment.

V. LEREIDE sees in the sections of preparations obtained from eczematous tissue and published in Unna's atlas, a proof of parasitic origin of eczema. From the sections it is evident that in the lesions of eczema microbic agents are constantly present, but whether the microbes are the cause of the lesions, or we have to deal with adventitious saprophytes can only be decided by bacteriological researches, by cultures, and not by microscopical examinations and bacteriological proof is still lacking.

VI. In the first part the author gives a detailed description of Duhring's seborrhea corporis and comes to the conclusion that Duhring's seborrhea corporis is an atypically localized form of psoriasis vulgaris of mild intensity. In support of his opinion he brings forward clinical histories and results of anatomopathological investigations which show, that in both affections the same histological changes take place and the slight changes which true psoriasis may undergo when localized in various regions of the body are not sufficient to warrant classifying such forms among seborrheic eczemas, as long as the skin changes present characteristics typical of psoriasis. The typical micro- and macroscopical appearances are inherent in all forms of psoriasis, making one indivisible group comprising typical and atypical cases as to appearance, course, and localization. Neither clinical observations nor anatomopathological examination warrant us in claiming any closer relation between psoriasis and eczema, especially when we accept eczemization as a reaction of the skin following an irritation.

In the second part, in a masterful critical review of Unna's conception of eczema seborrheicum, the author shows that this group of eczema does not possess in itself any firm anatomical basis and consequently it is impossible to decide on anatomical grounds whether any skin affection does or does not belong to

Unna's group of eczema. Regarding the presence of his morococcus, its casual relationship has not only not been proved, but having in mind Unna's description it cannot be differentiated from staphylococcus.

VII. AUDRY after reviewing historically the question of seborrheic eczema, regards it as a disease of the epidermis, entirely independent, circumscribed and in 80 per cent. of the cases well defined. It is of probable parasitic origin, inoculable and contagious, although the specific agent is not sufficiently determined.

He divides the disease in three main forms: (1) Regular, (2) anomalous, and (3) complicated cases. The first form is characterized by a macular patch which sometimes undergoes eczematization. The second form presents different varieties (*a*) erythematovesicular, (*b*) lichenoid, (*c*) psoriasiform, (*d*) erythrodermic. The complications are usually of external septic origin. The author considers the characteristic symptoms, localization, course of the enumerated forms, gives an account of histological changes of the tissues affected, enumerates some diagnostic points and advises the use of sulphur as the best remedy.

VIII. LESLIE ROBERTS draws a very ingenious comparison between the process of alimentary digestion and mesodermic digestion. Of the former the visual phenomena are in nature of things concealed from view, while in the latter the external situation of the cutaneous inflammations permits every stage of the process to be watched. Consequently, the chemistry of alimentary digestion is more known to us than its forms, while the chemical aspect of the mesodermic digestion is almost totally neglected, an undue importance being attached to form characteristics. In the author's opinion eczema simply means a reaction of the mesoderm to epithelial irritation, or to some irritant seated in the epithelium and leading thereby to certain temporary alterations in the nature of the epithelial cells. These epithelial stimuli are multiple and multiform and they seldom act singly, but as complexes. The gross features of eczema are in reality only the reaction of the mesoderm to changes which have already transpired in the epithelium, and which constitute the kernel and essence of the disease. Being preceded by a latent pre-inflammatory stage, he considers dermatitis and true eczema as belonging to the same type of cutaneous inflammations.

The rôle of parasites, especially the rôle of the morococcus, which is allotted by Unna an important place in the etiology of eczema cannot be regarded in the face of the evidence now in our possession as the cause of eczema, even if it is granted that this bacterium possesses irritative parasitic properties. B. L.

The Changes of Blood-Vessels in Syphilis.—S. S. ABRAMOV (*Clinical Journal*, p. 236, Russian, 1899).

After an historical review of the subject, the author gives two detailed histories of two patients who succumbed to syphilis. From a careful post-mortem microscopic examination of the affected organs especially the blood-vessels, the author draws the following conclusions:

1. All coats of vessels are independently affected in syphilis.
2. It is highly probable that the affected parts, the intima as well as the adventitia, undergoing hypertrophy, may derange in a certain portion of the vessel its natural anatomical structure leading to formation of an aneurism.
3. In time when the process in the intima is not so acute, elastic tissue, formed by the increased growth of the membrana fenestrata, penetrates into the new-formed elements of the intima.
4. Anatomically, changes in the arteries are to be considered as due to syphilis,

when gummata are demonstrated in them; and the presence of regressive metamorphoses in the intima does not militate against their being due to syphilis.

Blastomycetic Dermatitis (Abstract).—R. HESSLER (*Jour. of the Amer. Med. Assoc.*, Vol. 32, p. 760, 1899).

A healthy man was slightly cut in the neck by a barber while shaving. The wound healed in a few days, followed by the development of a small nodule which remained in a stationary condition for nearly three months, when it suppurated. The pus contained no bacteria, but yeast cells were found and similar organisms developed in culture tubes. In the pus the yeast cells were found chiefly in the interior of the corpuscles. In size they are as large as a nucleus of a polynuclear leucocyte, from which they can readily be distinguished on appropriate staining. The yeast grows readily in all ordinary culture-media and without the formation of carbon dioxide. Inoculations on animals have given so far negative results.

The Origin of Alopecia Areata.—N. MOSKALENKO and V. TER-GREGORYANETZ (*I'rach.*, p. 541, 1899).

From the experiments made upon four dogs and four cats the authors reach the following conclusions:

1. By cutting out the second cervical ganglion in dogs and cats not only a falling out of the hair is evoked but a typical alopecia is produced.
2. The cutting of the roots of the nerves also produces alopecia.
3. Casual injury to peripheral nerves is followed by an alopecia, but not of a typical character, the patches not being round.
4. Alopecia can be more easily produced in dogs than in cats or rabbits.
5. In young animals alopecia is more readily produced than in old ones. It appears earlier and the hair is usually regenerated in a short time.

Case of Multiple Adenomata of the Skin.—R. Y. AITKEN (*Brit. Med. Jour.*, p. 1533, 1899).

Woman aged 43, noticed thirteen years previously some small lumps growing on her forehead, scalp, and ears. They gave no pain, but had gone on increasing in size and number. A few small ones were scattered over the trunk. The largest was two inches long and one inch wide, and projected from the scalp about one inch. It, like many others, was slightly pedunculated. The skin over it was apparently atrophied, having a few enlarged blood-vessels over its surface. The tumors felt solid, and were quite painless. Microscopically, the growths show masses of epithelioid cells arranged very regularly in a fibrous-tissue stroma, the whole surrounded by a thin connective-tissue capsule. The cells of the periphery were arranged in columnar fashion, they were round or oval, their large nuclei staining readily. There has never been any tendency to ulceration in any of the tumors.

Angiomatous Tuberculide of the Lower Extremities (Mibelli's Angio-keratoma with Deep Vascular Lesions).—LEREDDE and MILIAN (*Ann. de Derm. and Syph.*, Vol. IX., p. 1095, 1899).

According to the authors Mibelli's angiokeratoma is an affection the primary cause of which is the same as of erythematous lupus, indurated erythema, etc.

They describe an example of the affection in a 19-year-old girl in whom the cervical and submaxillary glands were affected. The nails were changed, but no signs of pulmonary disease could be found. Judging from the histological changes of the vessels, angiokeratoma is allied to tubercular skin affections. It may be accompanied by changes of the deep vessels akin to those seen in the indurated erythema of Bazin-Hutchinson and Bartholomy's acnitis. In the literature are reported three cases of angiokeratoma in which pulmonary tuberculosis developed later.

Perforating Ulcers of the Foot.—G. HALLEY (*The Scottish Med. and Surgical Journal*, Vol. 4, p. 521, 1899).

In the three cases reported the ulcers of the feet existed for a longer or a shorter time, following callosities. In all three cases there was a certain amount of anæsthesia, and a varying amount of thickened epidermis. In none was there any affection of central nervous system. In one there was a history of peripheral neuritis. They were treated with rest and antiseptics but the ulcers recurred or refused to heal. Nerve-stretching was resorted to and the ulcers healed but reappeared. Amputation in such cases is uncalled for, as routine treatment, the results being unsatisfactory since the ulcer often recurs in the stump. It is difficult to diagnose the limit of nerve affection.

Black Tongue, with Photograph of a Case. Brief Consideration of Its Etiology.—W. S. GOTTHEIL (*Archives of Pediatrics*, Vol. XVI., p. 255, 1899).

The affected tongue of the two-year-old patient was scraped with a blunt instrument and an immediate microscopic examination was made of the scrapings both in the fluid obtained with it from the surface of the tongue and in dilute glycerin. Besides normal epithelial cells, detritus, the fragments removed seemed to consist entirely of irregularly oval, semitransparent bodies showing a faint gray color under the lens. Their grayish color was hardly apparent with the one-tenth immersion, but was plainly discernible with the quarter-inch objective. Occasionally they were found rounded, apparently surrounded by a thickened capsule stratified and partially disintegrated, more especially in specimens examined some time after removal from the mouth, which latter forms the author regards as disintegration and desiccation products of the normal oval cells. The cells were unconnected with one another, were not arranged in series and there were no mycelium. Some of the oval bodies showed hemispherical projections (buds); no cells in active proliferation could be seen. No cultures were made.

Two Cases of Scleroderma, with Remarks.—ALEXANDER JAMES (*The Scottish Med. and Surg. Jour.*, Vol. IV., p. 398, 1899).

In the first case the skin below the chin, the skin of the neck, over the hands and arms and to a much less extent the feet and legs are involved in the process. On the back of the hands, on the arms, upper lip, and to a certain extent on the chin and sub-maxillary region, the hair disappeared. The nails appear normal although brittle. A few small leucodermic patches are visible over the anterior abdominal wall. The thyroid gland was atrophied, the spleen was enlarged, being seven inches in its long diameter. The red blood-corpuscles are not altered in shape or size, containing 66 per cent. hemoglobin. No changes in other organs.

In the second case the disease is mostly evident on the fingers and only a certain amount of hardening of the skin can be made out over the arms and on the

face Spleen is enlarged, measuring eight inches in its long diameter; the proportion of red blood-corpuscles to white is about 700:1, hemoglobin 60 per cent.

The author examined the skin and blood for organisms. Blood taken from the finger-point was transferred to a broth-tube and at the end of twenty-four hours a pure culture of cocci, occurring singly, in pairs, and in clumps was found. From these sub-cultures were made in milk and in jelly (stab). In the first case the jelly did not liquefy, and in the second liquefaction began in a few days.

In connection with these organisms, it is of interest to note that they were also found in the blood from a skin puncture of a patient in the ward at the same time, suffering from Raynaud's disease and, furthermore, that at the time the scleroderma cases were in hospital, the number of cases of Raynaud's disease in the wards and attending the infirmary was much above the average. The author is not inclined to regard the organisms which were found in his cases as etiological factors in the morbid process, but rather as associates of the unhealthy condition of the skin.

Remarkably Enlarged Nails in a Case of Hypertrophic Pulmonary Osteo-Arthropathy.—A. W. BRAYTON (*Indiana Med. Jour.*, Vol. XVII., p. 424, 1899).

Man, colored, thirty-six years of age, suffering from phthisis pulmonalis shows swelling and bulbous appearance of the last phalanx of every digit and also of the toes. The nails are widened, lengthened, and curved from side to side and also bend over the tips of the finger; the finger-ends and nails have been enlarging more than four years. The nails measure $1\frac{1}{4}$ inches in length and $1\frac{1}{8}$ inches in width; they resemble the bowls of teaspoons, except they are not so pointed. The texture of the nail is perfectly normal; the nutrition is not affected.

Pemphigus Contagiosus.—N. GORDON MUNRO (*Brit. Med. Jour.*, April 20, 1899).

In Japan and China along the whole southern coast line there exists a skin affection which is called by Manson "pemphigus contagiosus" and by the Japanese "tobihi" (sparkling or leaping fire) as its lesions resemble very closely those of superficial burns. The disease is characterized by the occurrence of several bullæ, which spread by contagion from one part of the skin to another, or from person to person. Each bullæ is preceded by a spot of hyperemia. This spot is usually the seat of a slight itching, burning, or stinging sensation which is decreased with the advent of a vesicle. The vesicle contains a clear fluid, few cells. The cause of the disease is a micrococcus vesicans, with micrococcus was cultivated. Dr. F. Yorkura has succeeded in inoculating a patient already infected with this disease and in making pure cultures from the lesion. The bullæ usually become flaccid, the contents escape, leaving a weeping red surface under the cuticle, which frequently continues to exfoliate.

Pemphigus contagiosus does not begin with a febrile attack and does not invariably form pus; it is commonly distributed on the limbs and trunk. In the author's fatal case it could not be proved that this disease was directly instrumental in producing death. The treatment is mainly local but in case of a relapse tonics are required.

GENITO-URINARY DISEASES.

New Methods of Exploration Applied to the Diagnosis of Calculi of the Kidney. *Catheterization of the Ureters—Radiography.*—PROFESSOR ALBARRAN (*Ann. d. mal. d. organes génito-urin.*, p. 673, 1899).

The radiograph accompanying this abstract is one of the clearest that we have seen and according to Albarran the first successful one obtained in France upon the living. The patient was a man twenty-eight years old with severe vesical trouble which dated back several years with periods of exacerbation and remission. He had had several attacks of gonorrhea and for twelve years had had a cloudy urine. Six years before he had renal pain on the left side which had lasted several days without being of the nature of true renal colic. Two years after he had hematuria at different times. This seemed almost always to be induced by violent exercise, especially horse-back riding, and relieved by rest. Nevertheless in the Greco-Turkish war two years before, neither long cavalry rides nor the fatigue of the campaign produced either renal pain nor hematuria. He was then attacked with typhus and was several months in bed. After this he began to have severe pain during urination which kept increasing. Intervals became three or four times an hour and pain was extreme. The bladder was very sensitive to instrumentation and scarcely held 80 grams. No calculus was found in bladder, palpation of the ureters did not elicit tenderness to pressure. No enlargement of kidneys made out. The urine which was very cloudy and purulent was slightly alkaline, contained a very small amount of albumin, pus, and red blood-cells, no casts, no tubercle bacilli, but numerous micrococci. Sometimes patient had noticed urates in his urine, never gravel. The symptoms pointed to renal calculus with pyelitis. Washing out the bladder until the fluid came away absolutely clear, the urine then obtained was cloudy and purulent. No tubercle bacilli could be found. Hematuria on exercise. Pain on the left side pointed to calculus of the left side. The radiograph shows calculi on both sides. Unfortunately the most common form of calculus, the uric acid seems still to escape the X-rays. Lester Leonard being the only one who claims to be able to discover them by this agent. There are 12 cases detailed in which calculi have been found. This making the 13th, 3 oxalates (Morton, Olsberg, Braatz); 4 phosphatic (Hermann, 2 cases, Wagner, Albarran); 2 of carbonate (Lauenstein, Müller); uric acid (Leonard). But besides the transparency of the calculus to the X-rays, difficulties of manipulation also enter into the question. Tensity of the light, thickness of patient's body, position of the plate. The best tensity of light is a comparatively low grade, called technically soft ("mou") just before it runs into the condition called hard ("dur"), it is in this condition that the best shadows are produced. The intensity of the light is best tested by the fluoroscope.

The operation upon the left side showed the calculi exactly in the position in the radiograph. (Will appear in next issue.)

A Case of Triple Bladder.—DR. A. STRAUSS (*Centralblatt für Chir.*, No. 28, p. 778, 1899).

The subject was a young man, 29 years old, of feeble intellect who for years had suffered from intense frequency of urination and incontinence. The urgency occurred finally at intervals of five minutes and the clothes were saturated because of the incontinence. The urine was cloudy, contained a light sediment of pus-cells and a few red blood-cells, no albumen. Nothing abnormal by rectal

examination. Under urotropin and salol internally and protargol 10 per cent., and a few applications of silver nitrate 2 per cent. locally the urine became clear but there was no other improvement. Cystoscopy failed because only 30 grains of boric solution could be injected. Suprapubic cystotomy was determined upon. Under the anesthetic, sufficient fluid was injected into the bladder and the cystoscope introduced, and a large number of peculiar floating membranes discovered. A metal catheter was introduced and only a surprisingly small amount of fluid could be injected. On opening above the pubes a small tumor presented which was opened and found to be a small funnel-shaped sac into the internal orifice of which the metal catheter was fitted tight. The walls of the sac were atrophied, and thin, but mucous membrane and muscular tissue were discerned. This was at first taken for the bladder but the fact that it could not hold the amount of fluid injected for the cystoscopic examination, and further did not correspond to the cystoscopic picture lead to further examination. The catheter was withdrawn partially and reinserted beyond the first internal opening. Again only a small amount of fluid could be injected and a second sac, about the size of the first came into view, this was opened and found to be similar to the first one. The catheter was withdrawn and a large, woven Mercier catheter inserted into a third space behind the two previous, and 300 gr. of fluid could be injected and the apparent real bladder came into view. This was not opened but a drainage-tube left above the pubes, and a catheter left *à demeure*. No urine came through the suprapubic drain, but all came through the catheter. Recovery took place with but slight temperature disturbance. Catheter removed next morning and the drain on third day. After the wound had healed the intervals of urination were $\frac{3}{4}$ to 1 hour. The urine remained clear, 1000 to 1200 grams in 24 hours. The incontinence no longer remained. The author expects if the urgency increases to open the large bladder for removal of the membranes.

Removal of Multiple Calculi from Large Narrow-Necked Sacculi Connected with the Male Urinary Bladder. Two Cases.—REGINALD HARRISON, F.R.C.S. (Reprint from *Medico-Chir. Trans.*, Vol. 82). The first patient, 56 years old, history covered two years, symptoms of stone, urine purulent and ammoniacal. Neck of bladder elevated giving impression of prostatic enlargement. On sounding a stone was felt, and under an anesthetic a very small stone was found and crushed, as no other could be found a median perineal incision was made as for lithotomy and the searching finger found a small pit above the prostate and to one side of the median line, within which could be felt a jagged calculus. From this pit, which was found to be an elongated sac, with long, curved forceps several stones were removed and by further manipulation more were found, 34 small calculi in all. The instrument passed to the bottom of the sac could be readily felt through the rectal wall showing but little tissue between. The sac was capable of holding several ounces. A drainage-tube was carried to the bottom of the sac and out of the perineal wound. A sinus afterwards persisted in the perineum which did not heal and the urine readily became purulent if bladder irrigation were not persisted in. Two years later an attempt was made to close the perineal fistula, by opening the bladder above the pubes. The sac was found to be practically in same condition as it had been after the first operation. No stone was found in the sac, though phosphatic concretions had passed through the fistula. A drainage-tube was passed through the new incision into the sac, but the abdominal wound gradually closed without any change taking place in

the perineal fistula. The patient died two years later. The calculi were phosphatic in character.

CASE II.—Patient was 50 years old, for a year had been passing faceted phosphatic calculi. There was prostatic enlargement and as he had residual urine the catheter was used and he soon became dependent upon it. Though sounded several times no stone was found, but several small calculi were on one occasion removed by the wash bottle. Later it was found possible to catheterize a large sac independently of the bladder. Marked cystitis developed and operation for inspection and treatment was deemed necessary. The suprapubic route was chosen, and a small aperture just admitting the index-finger was found to the right and a little below the orifice of the right ureter. This sac contained over half a pint of foul purulent urine and five faceted stones which were removed with forceps. The sac was flushed out and a drainage-tube inserted through the abdominal wound into the sac, and a second tube into the bladder. There was tardy recovery from the operation and the problem of the sac still remains. It was possible to pass a cannula through the abdominal fistula into the sac and flush it out. Having in view the first case an attempt was made to solve the problem of shutting off the sac from the bladder and draining it through the perineum, but in this case it was not feasible, as on investigation it was found that a large artery, the iliac, lay beneath the sac, in very close apposition, rendering the attempt a dangerous one. At this second operation two hypertrophied lobes of the prostate were removed flush with the bladder with cutting forceps. Hemorrhage was free and was checked by pressure of pads soaked with perchlorid of iron and applied through a caisson. Oozing ceased in 24 hours. The patient was then able to pass urine by the urethra, the abdominal wound closed down and the sac was flushed through the urethra after this. A suprapubic sinus still remains. The calculi in this case were also phosphatic.

Encysted Vesical Calculi with an Account of Twenty-seven Cases.—

W. P. CLARKE, F.R.C.S. (*Brit. Med. Jour.*, p. 1141, 1899). The author has collected 27 cases. Six published by him in 1891, and 21 additional cases, 13 of his own, and 6 in the practice of others. The ordinary symptoms associated with vesical calculus are absent generally in these cases and as many of the cases are associated with hypertrophy of the prostate the attendant cystitis is liable to be attributed to the latter trouble. They are seldom detected by the searcher as they are apt to be covered with detritus and mucus so that the click is not elicited. Hematuria is seldom present as a symptom, persistent cystitis being the most common symptom. And it is generally only upon opening the bladder that they are discovered. The most frequent seat is generally in a small pouch behind the prostate where the original stone is generally caught and then growing by accretion enlarges a space for itself and becomes in large measure covered by the mucous membrane. One case reported was found encysted in the anterior vesical wall behind the pubes. Some perforate the bladder wall so that on removal urinary extravasation may follow. Generally the mucous and muscular tissue cover them, though the mucous coat may become ulcerated. After removal the treatment of the sac is often a problem, sometimes it contracts down and gives rise to no further trouble, if, however, the orifice of the sac is small and the sac itself of relatively large size some means should be sought for to obtain for the sac an independent drainage, and as the majority are situated near the base of the bladder perineal drainage between rectum and bladder is feasible. In none of the cases reported was this resorted to.

Sixteen out of the 21 cases were over 60 years of age and had accompanying enlargement of the prostate, only 3 of the cases were under 40 years, one was 14.

Two of the cases between 50 and 60 had suffered from stricture as had two similar cases in the first series of six cases reported. In some cases treatment of the bladder served to restore it to a healthy condition so that the calculus was overlooked for a long time.

In 6 of the 21 cases there was no operation, as the patient's condition did not warrant it. Of the remaining 15 cases operated upon 11 recovered and 4 died. In less than half of these cases only was the existence of stone known before operation. One case had been castrated to relieve the prostatic symptoms and the calculus detected after death.

The author makes it a rule to explore the bladder in obscure cases of enlarged prostate which remain irritable after repeated washing and has never had occasion to regret the procedure, to which he attributes the large number of cases he had to report. Then too the bladder benefits from the rest obtained by drainage.

Displacement of the Bladder with Fecal Impaction.—MAJOR L. C. CARR, M.D. (*N. Y. Med. Jour.*, p. 781, 1899). The patient, 44 years old, medical officer in the volunteer army, while on duty in Santiago had retention of urine, swelling in right iliac fossa and constipation. The swelling in the right iliac fossa caused great pain and gradually increased in size until it reached a level with the umbilicus and he had intense sciatica. To relieve the constipation he was given large doses of salts, castor oil, and croton oil, after the latter only a slight liquid stool followed. A diagnosis of fecal impaction was made and preparations were made for a laparotomy. The sciatica was so intense that morphin was given and even chloroform by inhalation. When ready for the operation he was in great agony, t. 100, p. 90, r. 18, no vomiting or retching. The abdomen was distended and tympanitic, the tumor in the iliac fossa was hard on pressure, movable, flat on percussion and gave a sense of fluctuation on palpation. There was no desire to urinate which had been overlooked. Catheterization was suggested and 1600 c. cm. of urine withdrawn (not all the contents of the bladder), which caused the disappearance of the tumor. Large enemas were given, by which the constipation was relieved. The following morning 1200 c. cm. urine and catheterization performed every four hours. Acute cystitis set in but was readily overcome.

The peculiar position of the bladder forming a tumor in the right iliac fossa and the fact that as attention was not called by the patient to the fact that he was not passing water led to the overlooking of the bladder.

Extrophy of the Bladder.—DR. C. A. WHEATON (*Jour. A. M. A.*, July 29, p. 256, 1899). Under this title the author reports two cases of epispadias and one of typical extrophy of the bladder operated upon by him. As to the theory of the cause of the deformity he is inclined to accept the rupture theory. His case of extrophy was operated upon at 16 years of age. The case was typical, exposed mucous membrane of bladder, rudimentary penis and corpora cavernosa, separation of symphysis. Right testis in the inguinal canal. Left testis undescended. The method employed by him consisted in dissecting up a bridge of skin from the perineum and bringing down the penis beneath it and fixing with sutures. The bladder was closed in by the flap operation, an oval flap from the

abdomen which at the time was free from hair was turned downwards, its epithelial surface forming the anterior bladder wall and two lateral flaps were brought up from the groin and rotated over the first flap. The patient was rendered comfortable by wearing a rubber urinal. The operation was performed 5 years ago. At present he claims discomfort from phosphatic deposit in the bladder and the author found deposit of phosphatic salts on the hairy projections on the bladder roof.

Extrophy of the Bladder.—DR. D. P. ALLEN (*Jour. A. M. A.*, p. 258, July 29, 1899). The author reports a case successfully operated on by the method proposed and performed by Maydl. He dissected away all the mucous membrane of the bladder except that immediately surrounding the openings of the two ureters. The abdomen was then opened, the ureters mobilized and the sigmoid flexure drawn from the abdominal opening. A longitudinal incision was made into the intestine and the extremity of the ureters with their mucous covering inserted into the sigmoid and these sutured. After this the gut was dropped back into the abdominal cavity, and the cavity closed. To avoid wounding the ureters, a small bougie was inserted into their openings. This he failed to do on one side. To strengthen the abdominal wall he split the rectus muscle on either side and united the divided portions of the muscle in the median line. To insure free escape of urine through the bowel the sphincter ani was thoroughly stretched and a drainage-tube inserted well up into the rectum. Recovery was rapid. The operation was performed November 3d, and the patient left the hospital December 10, 1898. His health has been excellent, there has been no irritation from retained urine. He holds the urine 4-5 hours during the day, and during the entire night.

Extrophy of the Bladder.—DR. RUDOLPH MATAS (*Jour. A. M. A.*, p. 260, July 29, 1899). The author discusses the operative treatment of this condition with special reference to Maydl's operation, and summarizes his impressions as follows:

1. All autoplasmic methods proposed for the cure of extrophy of the bladder are unsatisfactory and, at best, simply palliative.

2. Of all the radical methods which involve an excision of the bladder and a transplantation of the ureters to the rectum, Maydl's operation is by far the most complete, rational, and satisfactory from the technical point of view.

3. Maydl's operation offers the best conditions for the complete correction of the associated epispadias.

4. Notwithstanding the comparatively large number of successful cases accredited to this method, its relation is not fully ascertained, though the ratio, as obtained from published cases—over 13 per cent.—establishes the superiority of this method above all others from the prognostic point of view.

5. Notwithstanding the apparent theoretic simplicity of its technic, Maydl's operation is a difficult, laborious, and in many respects a dangerous, operation and should only be undertaken by those who have thoroughly familiarized themselves with its difficulties by special training in abdominal surgery, supplemented, if possible, by experimental work.

6. It should not be applied indiscriminately to all cases, but only to those patients whose general condition is such as to warrant a long tedious operation

likely to be attended by serious shock; and whose eliminating organs, especially the kidneys, are normal and capable of effective elimination.

Castration with Excision of the Vesiculæ Seminales and Vas Deferens for Tuberculosis.—PRINCESS GUÉPROYTZ DE BÉLOSÉROFF (*Rev. Méd. de la Suisse Rom.*, March and April 20, 1899) discusses the question of operating for tuberculous disease of the testicle. One school is opposed to any operation, the other would operate in every case where the other viscera are not obviously involved.

There can be no doubt that free removal as for malignant disease is the correct treatment, since it is now certain that tuberculosis is often primarily localized in the genitalia. Thus Reclus found that though the tuberculosis was general and pulmonary in twenty out of thirty necropsies, it was confined to the genitalia in the other ten. Simple castration is often quite inadequate, as the vas deferens and the seminal vesicle may be already involved. Ullmann of Vienna was the first to excise the vesiculæ seminales for tuberculosis in 1889, castration having been performed a month before, when it was seen that the vas deferens was also diseased, but Roux of Lausanne, in 1890, first devised and performed the complete operation of excising the testicle, vas deferens, and seminal vesicle at one sitting. Roux divides the operation into two stages: (1) The testicle is removed and with any diseased skin. The vas deferens is separated from the other constituents of the cord, which are ligatured and cut, and gentle traction is made on it until 6 or 7 centimeters have been freed. It is divided obliquely as high up as possible and the skin incision is closed. (2) The patient is then placed in the lithotomy position. An incision 4 inches long and a little more than an inch from the middle line on the left side is made, passing backwards by the side of the anus and ending just behind the level of the coccyx. Through this the prostate and anterolateral surface of the rectum are reached easily after dividing some of the anterior fibers of the levator ani. The left index-finger in the rectum then hooks the seminal vesicle downwards, and a loop of silk is passed round it as it appears in the bottom of the wound. It is then completely freed by peeling off all the surrounding connective tissue with the finger. The vesicle is then brought out together with the remains of the vas, the obliquely cut end of which proves that none has been left behind. The final step is to remove the vesicle by dividing its neck flush with the prostate and suturing the mucosa, the muscular layer, and the surrounding tissues separately. The perineal wound is sutured, and a bougie is passed for a few days. The writer has experimented on the cadaver in order to compare Roux's operation with those devised by others. There are three chief methods: (1) Excision of the vesicles by an inguinal incision; (2) by a sacral incision as in Kraske's or Rydiger's operation for excision of the rectum; (3) by a perineal incision. The first is very difficult to perform, in the second the lesion of the bone is a needless complication, and in the third though several incisions have been proposed none give so much room as Roux's without undue injury to the levator ani. A comparison of the twenty cases operated on by different surgeons which the writer has collected proves also that Roux's method gives the best results, some of his patients being alive and in perfect health three to six years afterwards.—*Brit. Med. Journ.*

Nephro-Ureterectomy for Traumatic Hemato-Hydro-Nephro-Ureterocis.

—DR. J. H. SUMMERS, JR. (*N. Y. Med. Rec.*, p. 156, July 20, 1899). The patient, a woman, 38 years old, fell, her right side striking the edge of the sidewalk. She was able to rise and reach home unassisted. Had pain in right side, some shock,

and had blood in the urine. When seen by the author a tumor in the right iliac fossa could be felt, slightly painful on palpation, had a boggy rather than a tense feel. The tumor bulged downward and inward rather than into the lumbar region. Three weeks after the accident she was brought to the hospital, the tumor had changed, it was cystic in character, occupied the lower median part of the abdomen extending toward the left side and down into the pelvis, but it also distended the right side of the abdomen, and might have been mistaken for a large ovarian cyst. The blood in the urine had continued. With the Harris instrument normal urine flowed from the left bladder basin, and from the right side flowed a bloody watery fluid. Under chloroform a curved lumbar incision was made and tumor exposed, but the ureter could not be reached till with a trocar several quarts of fluid (same as that obtained by the Harris instrument) had been withdrawn. The ureter was then found to be much thickened and distended. The entire tumor with kidney and ureter to the brim of the pelvis were removed, the kidney vessels were first ligated and divided. The tumor was peeled out of its bed, where it came in contact with the vena cava great care had to be taken, and there was some difficulty in separating it from the peritoneum, after the delivery of the tumor the ureter was readily followed down and ligated at the pelvic brim.

Examination of the specimen showed that all semblance to the kidney tissue had disappeared.

Two Cases of Primary Carcinoma of the Prostate.—L. BOLTON BANGS, M.D. (*American Journal of Derm. and G.-U. Diseases*, p. 121, 1899). The first patient was a man 59 years old, whose trouble began in December, 1893, by complete retention of urine lasting 10 hours which was relieved spontaneously, but was followed by urination every 2 hours, day and night. There was pain over the sacral region, which gradually increased in severity, and the dysuria became more marked. There was loss of flesh and strength. In June there was hemorrhage from the urethra and the patient sought medical advice. The stream was small and dribbling and the catheter revealed 3 pints of residual urine. The catheterization and washing of the bladder was performed daily but the condition increased in severity till no urine was passed except with the catheter. When seen by the author only a No. 5 F. woven catheter could be passed. By rectal palpation the prostate was of stony hardness, irregular in outline, much enlarged, and by bimanual palpation found to occupy the lower portion of the pelvis. The inguinal glands were enlarged and hard. The diagnosis of primary carcinoma of the prostate, of the scirrhus variety, was made and the case pronounced inoperable. The bladder was drained by the suprapubic route. Patient died within less than a year and a half of his first symptom. No autopsy was obtained.

The second case, a man 56 years old, was first seen by the author in December, 1891, when he was operated upon for stricture of urethra with infected bladder and was much relieved by the operation. Was off and on under his care. In 1894 he was found to have 2 oz. of residual urine and marked cystitis. In 1897 he again reappeared having marked frequency of urination, pain, and tenesmus. The urine was turbid and ammoniacal, with one ounce of residual urine. The prostate was enlarged, tense, and painful, which was relieved for a time by hot rectal douches. Later blood appeared in urine for the first time, appearing and disappearing at times till January, 1898. With the searcher a stone was apparently found which could be moved. Under ether, however, only some

phosphatic material was evacuated and no stone could be found. There was evident prostatic enlargement which bled easily, the operation was discontinued and the bleeding gradually ceased. In March, 1898, the patient entered St. Luke's Hospital, where suprapubic cystotomy was performed. The bladder wall was thickened, the prostate projected irregularly into the bladder. The mass bled easily and was carcinomatous in consistence, and fragments were removed for microscopic examination. Simple drainage instituted, death occurred 5 days later from anuria, three months after the beginning of his severe symptoms. No autopsy. Microscopic examination of the portion of growth removed showed it to be carcinoma, and had the condition of the patient permitted the case would have been operable.

What Advice Should the Physician Give Concerning Marriage after Gonorrhea?—DR. E. KROMAYER (*Calcutta Med. Rec.*, XVI., No. 21, p. 645).

The physician, in giving his opinion, must study the circumstances of the different cases, and must invariably consider carefully the three following points:

1. Since failure to find the gonococcus offers no certain proof of its absence, it is the duty of the patient to do everything in his power to get the disease absolutely cured. This endeavor must be not the less earnestly and persistently carried out in those cases where repeated attempts have failed to discover the gonococcus.

2. Should it not be possible to completely cure the gonorrhea, or should the patient, who is about to be married, be either unable or unwilling to undergo any further treatment, the physician must, after carefully considering everything connected with the patient, explain the circumstances of the case to him, so that he may form his own conclusion.

3. Should the patient decide upon getting married, the physician must earnestly warn him that he must look upon himself as capable of transmitting the infection, and under these circumstances should observe the following rules carefully: (a) To empty the bladder before coition in order to clear the secretion as much as possible from the urethra; (b) As much as possible to avoid frequent intercourse in one day; (c) Not to have intercourse twice in direct succession, since thereby the gonococcus which may be evacuated in the seminal fluid is likely, by friction of the second coitus, to be brought into closer connection with the urethra and cervical canal, and to have more chance of conveying the disease. (d) In case cohabitation is repeated at an interval less than one day, the woman should, by means of irrigation, thoroughly wash out the vagina, and it is recommended that this should be done frequently.

The object of these measures is obvious; it is another question if they will be carried out. Some patients, through natural indolence or carelessness, will forget the advice as soon as it is given; but that the physician cannot help, and it should not prevent him giving it. He has done his duty, and can rest with a clear conscience. Others will carefully carry them out and will be grateful to the adviser, who has saved his wife from infection and himself from the pangs of a guilty conscience.

That the foregoing advice is capable, if followed, of preventing infection where such is probable, the author has proved in cases where married men have freshly contracted the disease by irregular connection, and the wife, in spite of the marital embrace, has remained free from the disease.—*Post-Graduate*.

Therapeutic Notes.

Vasogen: A New Solvent.—(*Pharmaceutical Era*, April 20, 1899).

Vasogen is a vehicle which possesses the property of penetrating the pores of the skin more quickly than any other substance. It is an admirable solvent, holding in clear solution iodine, iodoform, creosote, guaiacol, etc., and remedies dissolved in it are quickly absorbed. Chemically, vasogen is an oxygenated hydrocarbon, *i. e.*, a partly oxydized hydrocarbon, and has the power of rendering drugs which are incorporated with it soluble in water or emulsifiable with it. Employed externally, it forms emulsions with the secretions of the body, and thus becomes rapidly absorbed. This fact has been proven beyond question by the presence of the drug in the urine after inunction with iodine, iodoform, creosote, and mercury vasogen. Iodine, creosote, etc., when dissolved in vasogeny, do not irritate the skin or mucous membranes, and can be used extensively both internally and externally.

For external use, liquid vasogen preparations are poured into wounds or are applied to them on cotton or linc; they are also painted upon the intact skin or rubbed into it with the hand. Internally the vasogens are taken in gelatin capsules or mixed with milk, coffee, tea, wine, or cognac. The following remedies in combination with vasogen are largely used: Iodoform, iodine, creosote, menthol, beta-naphthol, camphor-chloroform, ichthyol, guaiacol, sulphur, and tar. These preparations are made by dissolving the various medicaments in the liquid vasogen during its process of manufacture. Mercury vasogen ointment (33 $\frac{1}{3}$ per cent. and 50 per cent.) is a special preparation with inspissated vasogen. It may be obtained in handy capsules containing 3 and 4 grams each, can be rubbed into the skin much quicker and more thoroughly than the official blue ointment, is far more pleasant to use, and costs no more.—*Post-Graduate*.

Is the Dynamic Theory of Dr. P. H. N. Prohorov, Applicable in Therapy?—E. H. P. TAUBE (*Vrach*, p. 512, 1899).

The Treatment of Syphilis by the Method of Dr. Prohorov—N. E. AHATZOV (*Vrach*, p. 515, 1899). Prohorov advanced the idea of administering medicines to patients in doses according to their weight. He claims that there is neither a theoretical nor practical ground for expecting to obtain the same results from preparations administered in the same dosage to patients of different weight; that histories where such results are recorded are not exemplifications of the action of the drug but accidents. From his and others' experiments he concluded that the same medicinal preparations taken in the same dosage often produce different actions, and, that different medicinal preparations will exert the same effect, when taken in certain given quantities and the aim of scientific medicine is to find out in what quantity a given medicine will provoke biological phenomena in the desired direction. Syphilographers often complain of the uncertain action of mercurial preparations, that they often produce poisonous effects even when administered in very small doses, and in such cases, there is no

use in giving higher dosages; but according to Prohorov's theory in such cases an increased dosage will have a salutary effect.

Basing his work upon this theory Taube administered to patients mercury (biniodid of mer. 3., KI 6, water 100 for hypodermic injections) according to their weight, *i. e.*, 0.003 grm. for each kilo in grown persons and 0.0015 gr. in children, every 10 days. After the injections the patients lost weight for the first days, but regaining and even surpassing it later. With the increase of weight the appetite is improved. Very seldom the gums show signs of inflammation; there was not the smallest inclination to stomatitis. The only differences in patients were confined to the size of the nodules after injection and to the time of regaining their weight. In injecting other mercurial salts the author paid small attention to the individual idiosyncrasies of patients, but in administering sublimate he advises keeping the amount between 0.00025 and 0.001 for each kilo of weight. Later he prescribes 0.05 gr. of KI and 0.025 of sulphate of iron for each kilo of weight daily. The author compares the results obtained by his method with results obtained by other writers who administered mercury in the ordinary method and his conclusions are in favor of the method of weight.

The same results arrived by Akatzov who tried the method in one hundred patients suffering with syphilis.

Cacodylate of Sodium.—GIJSELMAN (*Wien. klin. W'och.*, 1899) in Rille's clinic used cacodylate of sodium ($\text{As}(\text{CH}_3)_2\text{ONa}$) in form of hypodermic injections (4.0-100 of water) in twelve cases of psoriasis, three cases of lichen ruber planus, one case of prurigo, and in one of sarcoma of the skin with good results. He claims that a larger amount of arsenic can be brought into the system, without provoking any of the undesirable effects, usually following the use of any other arsenical preparation. There is no local pain after injection.

The Use of Injections of Artificial (Hayem's) Serum in Malignant Syphilis—V. AUGAGNEUR (*Annales de Derm. et Syph.*, Vol. X., p. 433, 1899). In one case malignant syphilis developed three months after infection and in another, five years after infection. The other obtained good results from the use of Hayem's serum (chlorid of sodium 7.0, phosphate of sodium 2.0, water 1000). The injections were administered either in the buttocks or in the abdominal wall, every fifth or sixth day to the amount of 400 or 500 grams. A rise in temperature and diuresis followed the injections, and improvement resulted. When the injections failed to produce either a rise in temperature or diuresis this effect was very small. In both cases inunctions and calomel injections and iodid of potash were used, before the injections of serum were resorted to, but the mixed treatment did not have any effect upon the syphilitic manifestations.

Itrol in Genital Ulcers.—ISAAC (*Zeitschr. f. Prakt. Ärzte*, 1899) recommends the use of itrol (argenticum citricum) in treatment of genital sores, especially in chancroids. It has the therapeutic effects of iodoform without having its drawbacks; not emitting any odor whatever. Its action soon changes a chancroid into a healthy looking sore. Itrol is a very fine, dry, non-irritating powder, which is hardly soluble in water (1:3800) and being a cheap drug it can be very advantageously applied *ad usum pauperum*.

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Original Communications.

A MACULO-ANESTHETIC LEPRIDE OF THE PALM.

BY DOUGLASS W. MONTGOMERY, M.D.,
Professor of Diseases of the Skin, University of California.

THE following instance of a maculo-anesthetic lepride of the palm is reported only on account of its situation, as in no other respect did it differ from the same form of infiltration when occurring on other parts of the cutaneous surface.¹

On January 21, 1893, a boy, fourteen years of age, from one of the interior towns, consulted me to determine if he had leprosy.

He said he was born, and up to four years of age, had lived in Hawaii; since then he had resided in California. His father was Scotch and his mother American, and they had been divorced five years before the patient consulted me. The mother was in good health, and as far as he knew, his father also. I saw his mother, an elder brother, an elder sister, and an elder half-sister, who was a daughter of his father and a part Kanaka; they were all in excellent health, and showed no signs of leprosy. They all assured me that there was no leprosy in the family, and that there had been no association with lepers, either on the part of the parent or his relatives, when they lived in Hawaii. They afterwards

¹ G. Armauer Hansen and Carl Looft state that "Danielssen with his enormous experience, never saw a leprosy affection of the palm of the hand." "Leprosy in Its Clinical and Pathological Aspects." By G. Armauer Hansen and Carl Looft, English translation, page 6.

told me, however, that eight years before, that is to say, two years after leaving the Hawaiian Islands, and when the patient was six years of

FIG. 1.



Maculo-anesthetic Lepride of Back in Case with Lepride of Palm.

age, he was a good deal in the company of a Chinese fruit picker, with whom he used to play, tossing the fruit like a ball. The elder sister said, that at that time, she noticed that the Chinaman had something the matter with his hands, and that shortly afterwards he was declared a leper.

This seemed a most reasonable way of acquiring the disease. The patient was a great sturdy fellow, and like most boys in good health was always injuring his hands. The Chinaman presumably had leprosy of the hands, and the virus could have been conveyed by the fruit tossed from one to the other. As in substantiation of this, the most active lesion the patient had was the one on the finger. This way of accounting for the disease seemed reasonable and was believed in, until while talking with a man, who was engaged to be married to this boy's sister, it transpired that the patient had several relatives who were lepers. One maternal uncle had suffered from perforating ulcer and had died in infancy, and another maternal uncle, a maternal aunt, and three maternal cousins, the sons of this aunt, were all lepers. In fact, leprosy was such a marked characteristic of the family, that heredity was thought of as an explanation till Dr. J. K. Smith of Hawaii, who knew them well, told me that at least the cousins had had a full opportunity of contracting the disease by association with a native leper family with whom the boys used to play. It was the old story, that when sifted down, the evidence of the contraction of the disease by direct inoculation was weak, that by heredity was still weaker, and that by prolonged association was the only one tenable.

The previous August, the patient had first noticed a hard callous like eminence over the last joint of the right middle finger, and had also noticed that this could be knocked and roughly used without causing pain. When first seen by me the whole skin of this finger was swollen, red and oozing and looked like a weeping eczema. The thickening on the volar surface extended for a short distance down into the palm. The sensations of pain, heat and cold were decidedly obtunded over the dorsum of the second phalanx of this finger. Touch, although dull, was better retained than the other sensations. The finger-nail, the bones of the finger, and the joints were all right. The right ulnar nerve could easily be felt, and, when it was pressed on, there was a painful tingling sensation in the affected finger. There was slight swelling of the right and left epitrochlear and of the posterior cervical lymph nodules. On stripping him, a large erythematous patch with well defined raised borders was found situated over the middle of the lower dorsal region. There were two similar though smaller patches above and to the right of the larger one. In all these patches, the sensations

were perfectly normal. Sight, hearing, taste, and smell were normal. His general health was excellent, he was powerfully built and well grown, and had a beautiful white skin. A search was made for lepra bacilli, but none were found.

When seen again, March 1, 1893, three months after his first visit, the finger had entirely healed, leaving a slightly depressed scar over the radial side of the dorsal surface of the last phalanx. The skin of the finger remained thickened, however, except at its tip, where it was perfectly natural. A smooth, firm cord, the size of a good-sized whip-cord, could now be felt commencing on the radial side of the dorsum of the right hand, and extending around the wrist and on up the radial side of the anterior surface of the forearm to about the junction of its lower and middle third. This cord, when pressed on, caused tingling in the affected finger.

It will be remembered that the lesion on the finger had, when first seen, invaded the palm slightly. The extension during the next few months was very marked, and took place by a decidedly raised, dark red, desquamating, abrupt advancing border and the analgesia in this patch advanced with the advancing border.

While this patch in the palm was enlarging, those on the back were doing so also, but unlike the palmer lesion, they were at the same time clearing in their centers. The only diminution of sensation in the patches on the back was analgesia in the upper left corner of the large area which was noted August 8, 1893. About this time, the skin on the backs of both hands became chagreen like, and the back of the right hand began to puff up with the non-pitting soft edema so frequently seen in leprosy. By October, 1893, the skin on the back of the left hand had also become swollen, the border of the patch in the right palm had become dark purple, and he had almost constant tingling in the right middle finger.

A search for bacilli was made both in serum squeezed from the borders of the patches, and also in a piece cut out of one of the borders. The search was fruitless. It must be admitted that the piece of tissue was embedded in celloidin, and that at that time, the disadvantages of this embedding material in staining for lepra bacilli were unknown to me. Even without the bacilli, however, the case was too marked to be mistaken: for there was a family history of leprosy and residence in a leper country; there were patches with raised advancing borders: one of these borders in one instance, on the palm, became dark purple; there was clearing up of the centers of some of the affected areas; there was dissociation of sensations with the retention of those of touch, less heat and cold, and less of that of pain; there was tingling; there was

cordlike enlargement of the nerve leading from the affected skin area; and there was soft edema and chagreening of the skin on the backs of the hands. As regards the demonstration of lepra bacilli in purely maculo-anesthetic leprosy, it is frequently, as far as my experience goes, a most difficult task. By purely maculo-anesthetic leprosy, I mean uncomplicated by the presence of any tubercles whatever, for in blood current that their discovery in any piece of the skin is not all so tubercular leprosy there are at times so many bacilli flowing in the wonderful. I believe, however, that skin lesions such as have been described in this case are due to the direct action of the virus and are not trophoneuroses. My failure to make a demonstration may have been either through faulty technique or lack of perseverance in searching, or, most probably, through refractoriness of the bacillus to the stain.

The only instance I have been able to find of this form of eruption on the palms are the two cases reported by A. Von Bergman.¹

Leloir has described a tubercular lepride of the palms, but said that it resembled closely a syphilide in that situation. Hansen and Looft state that it probably not alone resembled a syphilide, but was one,² Kaurin speaks of three cases of tubercular leprosy of the palm.³ He says he has also seen small elevated macules, but never a tubercular lepride of the sole.⁴ Rille,⁵ however, has reported a tubercular lepride of the sole, and I, myself, have seen a tubercular lepride of the palm in a Chinaman. De Amicis of Naples has given the history of a leper who had bunched tubercles, presumably lepra tubercles, on the soles.⁶ There have, therefore, been regularly reported only eight cases of lepride of the palms and soles, one by Leloir, three by Kaurin, one by Rille, two by Von Bergmann, and one by De Amicis, and of these seven, two, those by Von Bergmann, have been maculo-anesthetic.

¹ "Die Lepra," S. 77, A. von Bergmann.

² "Leprosy," by Drs. G. Armauer Hansen and Carl Looft, English translation, page 6.

³ *Norsk Magazin for Lægevidenskab*, 1895, No. 4, page 267.

⁴ Personal communication.

⁵ "Société viennoise de Dermatologie," Séance du 13 Mai, 1895. *Annales de Dermatologie et de Syphiligraphie*, Tome vii, p. 1390.

⁶ "Atlas of Diseases of the Skin," by Prof. Dr. Franz Mrazek. English Edition, edited by Henry Stelwagon, M.D., Plate 51c.

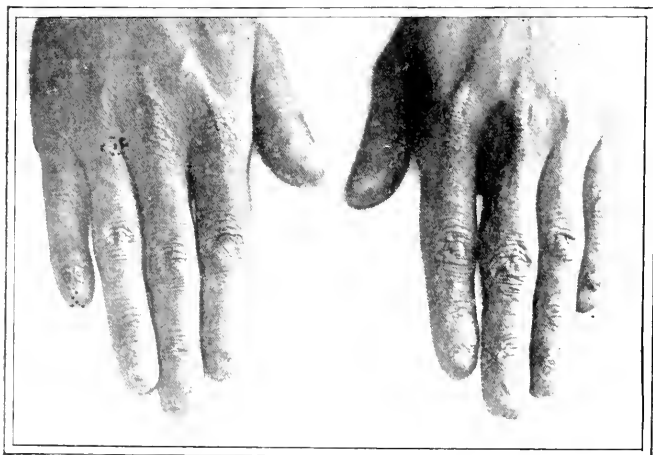
REPORT OF A CASE OF CONGENITAL DERMATITIS
HERPETIFORMIS, AND ALMOST COMPLETE AB-
SENCE OF FINGER- AND TOE-NAILS.

By S. SHERWELL, M.D.,
Brooklyn.

THE photographs submitted with this brief history of case, while themselves defective, as they were taken by an amateur, and under difficulties, will give a clearer, though still imperfect idea of the general condition.

The patient, Louisa B., æt. 28. Parents American, first cousins,

FIG. 1.



but healthy people, was the second born of seven children, all the rest healthy in every way. One died of diseases incident to childhood, another at a more mature age, the rest still living and very well. No history of specific disease or miscarriages, etc., on mother's side; father a vigorous and healthy man of about seventy.

I was called in consultation at Brooklyn Hospital, she being there awaiting confinement, which occurred two days later, and found the conditions which have been summarized in the heading of the report.

First, as to nails on right hand.—The merest rudiments of matrix on thumb and third finger, evidences of a nail-bed on most of the others, and a somewhat thin and glistening epithelial covering on the dorsal surfaces.

Left hand.—Traces rudimentary in character on thumb, index, ring, and little finger.

Both feet.—All nails, and almost all marking of nail-beds absent, except on large toes, on both of which rudimentary matrices and nail-stumps are present.

This condition has been present ever since her birth, and gives her no special inconvenience, or anything resembling pain, she is able to do most things for herself and general duties about house, etc.: the fingers would, however, naturally be more serviceable with perfect nails.

As to the other marked condition, that of dermatitis herpetiformis, that has also existed since infancy—I might say from moment of birth, small bullæ having been formed, on the extremities chiefly, a few days afterward, and having persisted in constantly repeated attacks since that time, so that she never has been altogether free. They have been and are, according to description and present appearance, of about the same type always; for the most part they are confined to the limbs the lower most affected, to a point a little distance above knee; as to the arms, a little above elbows.

The lesions are bullæ of a moderately large size (chiefly of the size of a ten-cent piece to a quarter-dollar); they are somewhat grouped, more or less erythema present, no particular areola around the bases, and an intense pruritus nearly always present, the scratching and rubbing for relief of which symptom has caused the excoriations, so marked in the photographs.

I may say that the severity of the pruritic symptoms, and of the objective lesions also, have much diminished under the internal treatment of mild doses of arsenic, tinct. nux vomica, and syr. iod. of iron, and the local application of an equally mild salve of ichthyol, salicylic acid, with a few grains of hydrarg. ammoniat, in cold cream, so that the appearances are decidedly improved. She still has, however, recurrent vesicular and bullous efflorescences every little while.

The parents, strange to say, have no particular theory as to causation of this condition in their daughter; the only thing the mother thinks may have caused a prenatal impression being the fact that one

day, about middle of gravid term, on her going down into a cellar, she trod on a snake, which frightened her considerably.

FIG. 2



I cannot personally theorize much on this case, except to state my belief that the dystrophy on one hand, and the pronounced bullous

dermatitis on the other, both have their origin in the same neurotic cause.

I might add that while the patient is a well-grown, somewhat tall woman, with all the indications and history of health in other ways, she has relatively decidedly a small cranium, and her ears are somewhat large and pointed, general intelligence not marked. This seems the only evidence of what might be called degenerate stigmata. The tactile sensations are normal.

REPORT OF CASES SHOWING UNUSUAL SITUATIONS FOR THE LODGMENT OF THE GONOCOCCUS.

BY GEORGE KNOWLES SWINBURNE, M.D.,

Surgeon to Good Samaritan Dispensary; Instructor in Diseases of the Genito-Urinary System, Cornell University Medical College.

THE importance of using the microscope in all forms of purulent secretion either from within the urethra or from the follicular glands near the meatus is exemplified in the following cases. It is certain that practitioners are apt to neglect the assistance which is to be gained from its use. As these cases were of great interest to the writer it was thought that they might prove of value to others.

INFECTION OF PARA-URETHRAL FOLLICLES PREVIOUS TO AN ATTACK OF GONORRHEA.

CASE I.¹—In July, 1898, a young man appeared at the dispensary about thirty-six hours after exposure to infection and showed a small pustule just below and to the right of the meatus, which he feared was the beginning of a chancre. He denied having ever had previous venereal disease. There was no urethral discharge, the inner surface of the lips of the meatus was perfectly normal. The pustule was not painful, its borders scarcely reddened, its covering was a thin pellicle, its contents thin sero-pus. A smear was taken from it on a glass slide and stained, but was not examined till after the patient had left the dispensary with orders to return the following day.

After his departure we were much surprised to find that the pus

¹ Reported in "A Study in the Treatment of Acute Gonorrhoea." *JOUR. CUT. & G.-U. DISEASES*, 1899, p. 109; case 4570.

contained quite a number of intracellular diplococci, in size and arrangement suggestive of the gonococcus.

The patient did not return till six days later, having on that day discovered for the first time that he had an urethral discharge which in appearance and by the microscope proved to be a typical beginning gonorrhea. The pustule, which was still present, proved to be the minute opening of a duct, which then could be felt as a thickened cord running back for half an inch parallel with that portion of the urethra, and evidently communicating with the urethra by its posterior extremity. The patient stated that he had long noticed that after urination he could often squeeze moisture out of the glans at that point.

At the time of the patient's first visit, no attempt had been made to destroy the focus of infection, and whether the urethral infection occurred at the time of the exposure, or afterwards from the secretion from the duct reaching the urethra over the surface of the glans, or by extension along the duct to its posterior opening into the urethra, it would be difficult to say, as it might have occurred in either of these ways.

During treatment, this duct was the last focus from which the gonococci disappeared, although it had received careful attention.

CASE II.—Appeared at the dispensary in November, 1898, and showed an exactly similar condition as Case I., in exactly the same situation. His exposure to infection had occurred three days before and he had noticed the pustule the evening before. He had never had previous venereal disease. The urethra, just within the lips of the meatus, was absolutely normal, with not the slightest tendency to redness. There was at this time no feeling of a thickened cord and the secretion was only at the mouth of the duct.

A smear was taken and immediately examined and found to contain typical intracellular gonococci.

An attempt was made to destroy the follicle by introducing a blunted hypodermic needle into the mouth of the duct and injecting a drop or so of 95 per cent. carbolic, and at the same time, with a view of protecting the urethra, protargol in 2 per cent. solution was injected into the anterior urethra and held there for five or ten minutes.

The following day more pus obtained from the duct was still found to contain gonococci, and the anterior portion of the duct was thickened. There was still no secretion from the urethra, which was again injected with the protargol. Nothing was done to the duct on that day, but the following day an attempt was made to inject protargol through the needle into the duct, and the urethra was again injected with the protargol with the view of protecting it against infection.

This program was followed for several days. The exact number cannot be given, as the notes of this case were unfortunately mislaid, but my impression is that it was the fifth day of the patient's period of observation and the eighth day after exposure, a minute, pearly drop could be brought, by pressure, to the meatus, and was found to contain gonococci. The impression gained by the daily observation of the case was that the infection reached the urethra through the posterior opening of the duct. The patient was treated daily for at least two weeks or so longer and during this time the daily appearance was the same. The urine at no time became cloudy, and never could more than a slight amount of pus be obtained at the meatus, at no time was there discomfort on urination, nor could gonococci be always found, often they were absent. The daily injection of protargol into the urethra seemed to protect it from further spread of the infection. Unfortunately the patient passed from treatment before it was satisfactorily ascertained that a cure had been effected.

INFECTION OF A MUCCO-CUTANEOUS FOLLICLE IN THE PREPUCE.

CASE III.—F. A. was sent to me in July by his physician, who was leaving the city for a vacation. The case was just at the close of an uneventful attack of gonorrhea, which had been treated by permanganate irrigation and protargol injections. This was the patient's third attack, the first occurring three years ago. The patient had a long prepuce, which, while he was being irrigated was retracted, and on one visit I noticed on the inferior aspect of the prepuce at the junction of the skin with the mucous membrane a raised circular spot the size of a split pea, which at first glance resembled a small chancre which had healed over. Patient said he had called his physician's attention to this and he was told to pay no attention to it. On closer examination it was found not to be an induration, but was the thickened mouth of a follicle from which a minute drop of pus could be obtained, which, on being stained and examined under the microscope, was found to consist of pus and both intra- and extra-cellular gonococci, typical in arrangement. When the prepuce was in its ordinary position, this follicle came exactly opposite the meatus and might easily act to reinfect the urethra. Patient stated that an exactly similar condition had existed during each previous attack and by the physician who then treated him was pronounced chancroid and cauterized.

Circumcision would have been the proper treatment, or else the follicle could easily have been snipped out with a pair of scissors. This not being convenient to do at the time, a blunt hypodermic needle was

passed into the follicle nearly half an inch and a few drops of a 5 per cent. solution of protargol injected. This markedly diminished the amount of secretion from the follicle and after the third injection no gonococci could be found. The patient, however, desires circumcision, and it is hoped that a further report can be made on the microscopic sections about the follicle.

AN INFECTED FOLLICLE AT THE FRENUM RESEMBLING CHANCER.

CASE IV.—These cases are much more frequently met with and are usually recognized as being of gonorrheal origin, but as this patient had been treated for three weeks by a physician for chancre, and his urethral discharge had been entirely overlooked, it seems worth while to report it.

J. M. appeared in February, had had an attack of gonorrhea two years before, which had lasted nine months. Three weeks before he had noticed a small lump on one side of the frenum, which was pronounced chancre by the physician to whom he applied for treatment. Examination showed that there was thickening of the tissues at this point, but hardly amounting to induration, the center was occupied by a small opening secreting pus, which was found to contain gonococci. Further, there was a slight urethral discharge which even the patient himself had not noticed, it had caused him but little irritation, probably more because his mind was entirely centered on what he had supposed was a chancre. The follicle was several times injected with 5 per cent. protargol, and in less than two weeks had entirely disappeared. The urethral discharge was at first quite stubborn, but finally yielded to irrigation of permanganate and injections of protargol. The patient disappeared before a final test was made.

A CASE OF URTICARIA PIGMENTOSA.

BY ARTHUR A. SMALL, M.D., M.R.C.S., Eng., L.R.C.P., London,
Toronto, Canada.

THE rarity of urticaria pigmentosa warrants at least a brief record of any well-marked case.

The patient, a male child, seventeen months old, which Dr. Graham Chambers of Toronto was kind enough to see in consultation with me, has, according to the mother's statement, "never suffered from any illness since birth" and is now in excellent general health.

The present eruption began or was first noticed when the child was four weeks old and has not since been absent.

The lesions are mixed and consist of wheals, macules, maculo-papules and papules, which are extensively distributed and profuse, being most numerous however on the trunk and lower extremities.

On the scalp there are three large yellowish-brown macules oval in shape, averaging about one inch in length in their longest diameter. At the margin of the scalp and on the forehead and face there are also a great many yellowish macules, being more numerous, however, on the right side. The eyelids are not affected.

The neck and trunk are thickly beset with papules, maculo-papules and macules. The papules are defined and firm about the size of a split pea of a brownish-red color and to the finger they feel considerably thicker than the normal skin; upon pressure their color becomes less vivid but does not disappear. The maculo-papules though few in number are of large size, the largest measuring two-and-a-half by one-and-a-half inches, they are red in color, becoming yellow on pressure and to the finger they feel thicker and less flexible than the normal skin. The macules are of the same color and same appearance as those on the scalp and face. One or two true urticarial wheals were seen on the trunk at each examination. The arms, flexor surface of forearms, and dorsa and palms of the hands are thickly covered with the lesions above described. The extensor surface of the forearms is entirely spared. The buttocks, thighs, legs, dorsa, and soles of the feet are in the same condition as the upper extremities.

There are a few yellow macules and six well-defined papules on the penis. The scrotum presents no lesion whatever. No lesions were observed on the palatal or buccal mucosæ.

At the last examination the left buttock was almost entirely covered

by one huge wheal which had evidently been produced by irritation of the diaper.

Itching in this case has been a prominent symptom, and it is especially noticeable when the clothes are removed and the surface of the body exposed to the air: although the skin around and between the lesions is normal in appearance it is very irritable, almost amounting to hyperesthesia. That factitious urticaria is present is very

FIG. 1



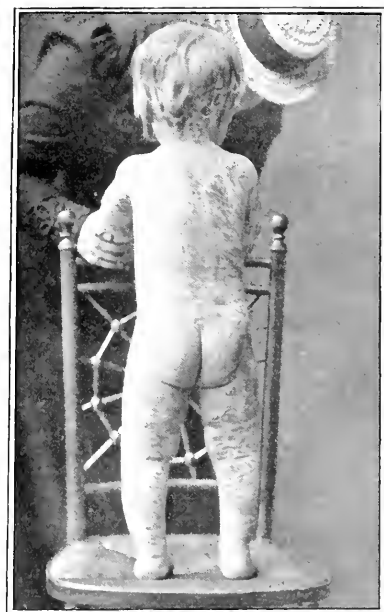
well shown in the photograph by the letters "U R" and the cross, which were made with the blunt end of a probe.

The wheals which were produced by irritating the skin were somewhat peculiar in that they were very tardy in formation, but once formed they were persistent. I might also add that irritation not only caused the formation of wheals, but also enlarged to a marked degree the older nodules.

It would, therefore, appear that this case comes under the second variety of urticaria pigmentosa described by Dühring, for clinically it looks somewhat like a papular xanthoma, and it assuredly has the urticarial element. For such cases he suggests the name "xanthmoidea urticans."

As to the differential diagnosis and especially with reference to

FIG. 2.



xanthoma multiplex (for which disease urticaria pigmentosa has not infrequently been mistaken) the symptom-complex of urticaria pigmentosa mentioned by Crocker are certainly all present in this case, namely, the early onset, the firm lesions, the itching, and the factitious urticaria.

Book Reviews.

An Introduction to Dermatology. NORMAN WALKER. Bristol: John Wright and Co. 1899.

Students' manuals on the subject of dermatology are almost as numerous as teachers in medical schools in English-speaking countries and as varied in degrees of excellence as in numbers. To deserve a painstaking review even, a new one must possess some striking features and to be adopted in place of those already in use a merit quite out of the ordinary. Walker's fitness for his task is unquestioned. The JOURNAL's readers are familiar with his work, especially the translation which placed Unna's Histopathology in their hands; his long experience as a teacher in the Edinburgh Royal Infirmary gives him the necessary insight into the student's needs. The result is plainly seen in this volume which, in justice be it said, is better adopted to the end in view than the great majority of its fellows. It is by no means free from faults, both from the view-point of the beginner and the trained observer, but they are easily forgivable because they chiefly arise from personal leanings, as for example, the identification of seborrhea sicca with psoriasis, a bias sternly repressed in deference to prevailing opinions. It is a poor teacher who fills his pupils with workings of the personal equation. In the words of the late Horace Greeley, the book is "mighty interestin' readin'."

"Classification" is a word in dermatology which has become synonymous with discord, every man for himself and the rest nowhere, but we are sorry to see Walker array himself under Unna's banner. The latter's effort may do well enough for his "Histopathology" since it was the histology alone that was needed, but why Walker should adopt it when even he must modify it for good reasons, is past comprehension. He lamely remarks: "It is at all events a more logical one than some of the others." Classification under A, B, C, is rightly dismissed with contempt, as shirking of duty. The rest of the introductory is deserving of all praise, in particular the part which treats of history-taking and which we remember to have seen nowhere else. General treatment goes straight to the foundations of things and both here and under separate disease headings the text will be found to elucidate a point or two which has escaped many of our sapient selves.

One thing strikes the reader all through the book and since it will escape no eye, may as well be mentioned, although it may seem a left-handed way of advancing a claim. It is this: It is understood that references are, as a rule, out of place in a manual but, being given, why should they be practically limited to Great Britain and Hamburg? Why should Crocker and Unna be quoted as authorities on xeroderma pigmentosum and Kaposi forgotten? Why, oh why, is the student to be burthened with Unna's hideous monstrosities of nomenclature even in italics? Citations are, of course, exceptions, but there are few foreigners noted in these pages. An idea of the depth to which Unna's classification leads may be formed by the fact that pediculosis lies sandwiched between contagious impetigo and eczema.

Eczema is well handled, following Duhring's plan of division into lesional and regional varieties. If the author's definition, "Eczema is the term commonly

applied to any wet or scaly inflammation of the skin, of the cause or nature of which the observer is ignorant," is a true one (doubtless it is), how comes it to be classed with infectious inflammations? In passing, it should be remarked that, except this choice bit, no definitions of undefined diseases mar the pages. In eczema, as elsewhere, it is treatment which is most praiseworthy. Walker still holds to the old "seborrhea" and does not feel inclined to take the field in defence of the morococcus. Altogether, too little space is devoted to syphilis, a fault common to many other text-books. References to particular points may be multiplied *ad lib.*, but one more will be sufficient. It is curious to find a Briton frankly including erythema induratum with the true tuberculoses.

The author has not failed, for all the accusation above, in including the results of the best modern work. It is sad, but we have no time in these days for retrospect. The easy, conversational style of the book is not the least of its charms; it carries you along where it is usually weary plodding in a maze of words. Histology is given all the attention good for a student and being "after Unna," it gains in exposition. The book-work is fair; the illustrations are not even that. The half-tones are, as a rule, as bad as the chromolithographs.

Wm. Wood & Co., will shortly issue an American edition which, we understand, will be more reasonable in price than any good manual published in this country.

J. C. J.

Society Transactions.

NEW YORK DERMATOLOGICAL SOCIETY.

Stated Meeting, April 25, 1899.

P. A. MORROW, M.D., Chairman, *pro tem.*

Case for Diagnosis.—DR. FORDYCE presented a young man who first noticed in November, 1898, an itching eruption, which he considered to be nettle rash. About a month later pigmentations developed over the original itching areas which were limited in distribution.

He has had since that time several attacks of pruritus which have been limited to the original pigmented areas. The pigmented spots are irregular in outline, from half an inch to three inches in diameter. They are situated over the hips, the gluteal region, back, chest, and extremities; their color varies from a purplish to a brownish red.

The patient is a student of medicine and enjoys excellent health.

DR. H. KLOTZ said that the case reminded him of one presented by Dr. B. Lapowski, as one of the premycotic stage of mycoses fungoides, although the history was not the same. He did not feel any more like making a diagnosis than in the former case.

DR. C. W. ALLEN thought there might possibly exist a form of urticaria pigmentosa producing large pigmented spots of this kind, although he had never seen just such a case. He had seen a child, the subject of recurrent urticaria, with a single very large pigmented urticarial spot. He would not make a diagnosis of mycosis fungoides until the symptoms were more pronounced.

DR. SHERWELL thought it might be the premycotic stage so-called. The case reminded him of one seen in a blonde, a year or two ago. In that case, the recurrence had been especially marked at the time of menstruation. He would endeavor to trace the case for further study and for comparison with the one just presented.

Dermatitis Herpetiformis or Pemphigus?—DR. FORDYCE presented a man, thirty-eight years old, with a generalized bullous eruption. When first seen the eruption consisted of grouped vesicles bullæ and wheals. It was attended by intense itching. At this time the eruption consists chiefly of bullæ in various stages of development and retrogression. There has been a good deal of constitutional disturbance.

Serum from the bullæ was found to contain a large number of eosinophile cells.

Malarial organisms were present in the blood.

DR. GEORGE T. JACKSON said that it seemed to fulfil all the requirements of Duhring's disease—a multiform eruption, recurring from time to time, bullæ on the sound skin, etc.

DR. E. B. BRONSON said that he would want to exclude an urticaria bullosa before venturing upon a diagnosis.

DR. A. R. ROBINSON thought the case was one of dermatitis herpetiformis, and in this opinion Drs. L. DUNCAN BULKLEY and WINFIELD concurred.

DR. KLOTZ said that he had nothing to say against the diagnosis of dermatitis herpetiformis except that the recurrence of the attacks was an essential feature of that disease. The history in this case of a previous attack, twenty-seven years ago, seemed a rather doubtful point.

DR. J. C. JOHNSTON said that he would have agreed to the diagnosis of dermatitis herpetiformis if it had not been for the last case presented by Dr. Fordyce, which was almost identical with this first one in every particular—the grouping, presence of wheals, etc. The case had developed into an undoubted pemphigus.

Acne Varioliformis.—DR. C. W. ALLEN presented a man having acne varioliformis with lesions scattered over the whole scalp, behind the ears, on the nose and at the canthus of either eye. It was the last-named rare situation which gave the case its interest.

Case for Diagnosis.—DR. E. B. BRONSON presented for diagnosis a case of circumscribed bullous or large vesicular eruption affecting the hands. It had apparently occurred spontaneously first on the arm, and a week or two later, on the palm of the hand. It was attended by intense itching and very abundant exudation, so that when a vesicle was opened the modified serum oozed up as though from a spring. The man is a clothing-cutter by occupation.

DR. SHERWELL said that he thought cases of pompholyx would be found occurring almost always in people of a very neurotic temperament, or those made nervous by their occupation.

DR. ALLEN said that he had recently seen in tailors' cutters circumscribed groups of vesicles limited to the palms which would coalesce, leaving denuded surfaces with bullae at the margin. He looked upon it as a mycotic eczema, probably connected with the business of working in cloth.

DR. KLOTZ said that he also considered the case one of eczema and could not look upon the lesions in the palm as especially unusual. The development of the corneous layer accounted for the deep-seated vesicles.

DR. JACKSON regarded the case as one of pompholyx. In acute eczema there should be more inflammatory symptoms. Moreover, here were rather larger vesicles than in eczema, and they showed no tendency to run together and break down as is the case in eczema. He had seen three or four such cases in the last few months at the Vanderbilt clinic, one of them that very day, occurring in a woman who gave a history of recurrent attacks and had sweating palms.

DR. ROBINSON disagreed with this diagnosis on account of the absence of grouped lesions on the hands. These were isolated lesions, whereas in pompholyx the lesions were always grouped, and those of a group usually of about the same age. In this case there was a raw eczematous surface between the fingers, a condition which he had never seen in pompholyx. He would regard it as an eczematous process. On the forearm there was probably a complication in the process as a result of some external irritant.

DR. H. G. PIFFARD considered the case one of eczema.

DR. WHITEHOUSE considered it eczema with a secondary infection.

DR. WINFIELD said it resembled some cases seen recently in cloth-cutters, and apparently due to irritation.

DR. BRONSON said that it seemed to him not at all typical of chronic eczema, and such a thing as acute eczema was almost discarded at the present time. He

had looked for an extraordinary cause in this case, but had failed to find it. He could not believe that his occupation alone, which he had followed for years, had suddenly set up this peculiar dermatitis. Within the past few days the patient had told him that the disease had begun upon the arm, although he gave a rather vague description of it. It itched intensely, and was discharging, and a physician had prescribed iodoform gauze. This had been applied for two days, and it had aggravated the eruption. Subsequently the bullæ had appeared. This had reminded the speaker of several cases of iodoform-poisoning presenting large bullæ, and showing a strong tendency to ooze profusely. He would like an expression of opinion on this point.

DR. ALLEN said that in the new light thrown upon the case he could see the probability of this being the diagnosis, as he had met with a number of cases of iodoform-poisoning in which the eruption had resembled rhus-poisoning as well as pompholyx.

DR. KLOTZ remarked that in all cases of iodoform-poisoning that he had seen there had always been present a much more marked diffuse dermatitis, while in this one the vesicles on the fingers appeared on almost normal skin.

DR. JACKSON said he had always looked upon an iodoform eruption as a dermatitis, whereas there was no dermatitis in this case.

DR. JOHNSTON remarked that this had also been his impression.

Cases of Favus.—DR. ALLEN presented two young boys for the purpose of emphasizing a source of danger in the barber-shop—i. e., the spread of favus. He had exhibited two meetings since a young girl who had been born in Brooklyn and who had favus. In that case the lesions had suggested rather a seborrheal affection than a favus. It had been examined by the microscope, however, and there had then been no question about the diagnosis. That girl had had her hair cut regularly at a barber-shop up to the age of ten years, and this had been undoubtedly the source of the infection. Some years ago he had called attention to the fact that cases of favus were coming into this country at such a rate that unless something were done to limit the practice of sending these children to barber-shops there would soon be a great deal of favus in the native-born children.

The two children now presented were American-born, and they exhibited much the same appearances as the girl shown at a previous meeting. The diagnosis had been confirmed by microscopical examination. Another point was that these boys had never had medical treatment, but they had been treated by a barber regularly, by application which he made in his shop. The speaker said that one of the worst cases of favus that he had ever seen in this country had been treated in a barber-shop, and it had been apparently cured. It seemed to him that this society, and the American Dermatological Association, should emphasize these points more than ever before, and should endeavor to control the barbers in this matter.

DR. JACKSON said that there could be no doubt about favus being on the increase in this country, and that many cases developed in this city, for the most part, among the Poles.

DR. SHERWELL said that he had reported a number of cases of infection from the lower animals, notably one series published in the *Veterinary Journal*, in which the transfer had been from mice to dogs, and from dogs to the human subject. Cats were often similarly infected when catching infected mice. In this way it was easy to transmit the disease to human beings. In another case there

had been a very typical patch of favus below the lower lid, which had been transmitted in this way. When the Ellis-Island buildings had been burned down, 65 cases of favus had been transferred to the hospital in Brooklyn. He had urged that these cases should be sent back to their country, claiming that they were more dangerous than leprosy. So far as he knew, however, the disease had not been transmitted to the nurses or to others coming in contact with these people at that hospital.

DR. KLOTZ said that he had seen the seborrheic crusts in several cases of favus, and agreed with Dr. Allen that under such circumstances it might be very difficult to make the correct diagnosis.

DR. ALLEN said that there could be no question that despite the law which required the authorities to turn these cases back, they were being continually admitted to this country. Within a fortnight he had seen several cases of typical favus that had just landed. In spite of school regulations excluding them he saw a number of children every week who had been attending school regularly for a considerable time.

Case for Diagnosis.—DR. PIFFARD presented for diagnosis a woman with an eruption on the face, with points of resemblance both to late syphilis and lupus erythematosus.

DR. ROBINSON said that he looked upon the case as syphilis, because of the presence of some sharply limited infiltrated lesions of the corium. It was probable that the chronic inflammatory process had been more or less changed to an acute condition by external irritants, as soap and water, rubbing, exposure to the air, etc.

DR. JACKSON concurred in this diagnosis.

DR. KLOTZ thought it might be a case of lupus erythematosus on a syphilide because after three years he would expect to find more scar tissue. The edges were not well defined, and if the patch were left to itself he thought it would be covered with crusts, and would present a more characteristic appearance.

DR. SHERWELL thought it was a case of syphilis, and looked upon the seborrheal element as rather more typical of syphilis than of erythematous lupus. He had encountered several cases presenting this appearance, which had yielded promptly, and with very little scarring, to appropriate local and constitutional treatment.

DR. WINFIELD said that in spite of the previous history he would call it syphilis.

DR. WHITEHOUSE said that it was undoubtedly a case of syphilis. She had been under his own observation for six or seven months, and would get well with very little mixed treatment. She would then neglect her medicine, with the result that there would be a relapse. When first seen there was a typical serpiginous process.

DR. PIFFARD said that the woman had come to his clinic two weeks ago, and at that time there had been a good deal more infiltration and redness, and there had also been points exuding pus. The history was quite vague. She had been put on mixed treatment, and the change in this short time was that which one would expect in a case of syphilis.

Case of Keratosis Senilis.—DR. JOHNSTON presented a woman who, when first seen, a week or two ago, had apparently had a typical lupus erythematosus. He found now that the supposed lupus had almost entirely disappeared under a

week's use of ammoniated-mercury ointment. He now looked upon the case as simply one of keratosis senilis.

Case of Bullous Eruption.—DR. PIFFARD presented a man who had a bullous eruption on the hands which had recurred in the spring and fall of each year for three years. He had no occupation at present, but had formerly worked as a farmer. The lesions were really abortive bullæ.

DR. WHITEHOUSE regarded the case as one of erythema multiforme or herpes iris. He had recently seen a case in which both palms only had been affected. There had been a number of relapses, extending over several seasons, and the palms in each instance were the only parts involved.

DR. WINFIELD and DR. SHERWELL concurred in this diagnosis.

DR. ALLEN accepted this diagnosis, and added that he had a patient who had similar lesions on the palms at the same time that he had erythema iris on the backs of the hand and feet. These lesions would recur at about the same time in the spring.

DR. KLOTZ said that several years ago he had presented an elderly man who had attacks of erythema on the hands in the spring and in the fall.

DR. JACKSON said that he was reminded of a case now under his care. The patient was a medical man who had had attacks at intervals for a year. When he saw him first there was a simple erythema multiforme. The second time he saw him he had herpes progenitalis, and the third time he had a herpes iris on both hands.

DR. L. DUNCAN BULKLEY said that these cases were not very rare; he had two or three at present in his private practice, having lesions in the palms. He had looked upon them as arising from an auto-intoxication having its source in the intestines, and having an underlying neurotic element.

DR. PIFFARD said that the diagnosis could not be doubted, but he would like to know the cause of these periodic affections. Dr. Bulkley had suggested intestinal toxins, but when he spoke of it as also being neurotic he could not understand what was meant. In that class of erythemas which come in successive attacks he had been accustomed to attribute the condition to errors in diet. He thought the attacks were shortened by quite liberal doses of arsenic.

DR. ROBINSON said that he thought nearly all the cases he had seen could be traced to intestinal fermentation or kindred processes, with absorption of toxins, and the resulting injurious influence on the nervous system.

DR. BULKLEY suggested that $\frac{1}{64}$ of a grain of bichlorid of mercury be given in bitter infusion, claiming that it acted well in many of these cases.

DR. ALLEN cited a case in which within two or three days a cure had been effected under the use of antisyphilitic treatment.

DR. KLOTZ said that the more frequent occurrence at certain seasons of a certain class of disorders, among them urticaria, zoster, erythema, suggested as the etiological factor certain atmospheric influences of a nature as yet not understood. The use of special kinds of food at certain seasons and indigestion due to them, might have some influence, but could hardly account for all cases.

DR. JACKSON remarked that the physician to whom he had referred had been taken mercurials on the supposition that his cutaneous affection was syphilitic, but the treatment had had no effect on the skin lesions.

Case of Tuberculosis Verrucosa Cutis.—DR. ALLEN presented a man having tuberculosis verrucosa cutis over the knuckle of the index-finger. He was a

barber by occupation, and had had the disease for eight years. At the time of its development he had been engaged in collecting and cleaning hog's bristles. When first seen the lesion had been at least half an inch high and about one inch and a half in diameter. He had treated it first with Bougard's paste, and subsequently with caustic potash and cocain paste. The disease had seemed to be quite eradicated. Since then he had worn constantly a mercurial plaster, but in spite of this there had been more or less recurrence.

DR. SHERWELL said that he had observed this condition very commonly in persons whose occupation required them to use bristles or the hides of animals. Men who were engaged in grinding off the inner fibrous layer of the hide were especially prone to exhibit such a condition.

DR. WINFIELD suggested that salicylic acid was indicated in this case, in the form of a strong ointment.

DR. WHITEHOUSE said he firmly believed that the most rapid and satisfactory result was obtained by the use of the sharp curette. It was surprising how deep one could go, and how small would be the scar. He recalled one very extensive case seen at the Skin and Cancer Hospital, which had yielded a fairly smooth surface under this vigorous curetting. In another case, there had been scarcely any scar left after curetting and healing.

DR. PIFFARD said that intestinal tuberculosis was not uncommon in hogs in some parts of the country, but he could not see the connection between the intestine and the bristles. He looked upon the case, however, as one tuberculosis in nature.

DR. ROBINSON said that if this were his case he would experiment upon it with liquid air to destroy the bacilli.

DR. BULKLEY also thought that curetting was the best treatment for these cases, possibly followed by salicylic-acid paste to complete the cure.

DR. JACKSON thought curetting was the most rapid treatment, but some people would not consent to it. He had treated a number of cases at the Vanderbilt Clinic by an imported plaster composed of 20 per cent. salicylic acid and 40 per cent. creosote. It acted most efficiently, and the treatment did not prevent the patient from continuing at his occupation.

DR. JOHNSTON said that he had formerly thought that radical measures were appropriate in this condition until he had met a friend who made many autopsies at Cornell. He had four lesions on the back of one hand, and, bearing in mind some cases of systemic infection from these tubercles, the speaker said he had advised curetting and a dressing of iodoform. Although nothing had been done, the disease had absolutely disappeared.

REPORTS OF CASES.

DR. JOHNSTON referred to a case of prurigo presented at the last meeting, and said that it was doing admirably under treatment, consisting in hot baths, followed by massage with oil.

Eruption After Vaccination.—DR. PIFFARD said that last Thursday a young lady had developed a macular eruption on the face, and on the following day he had seen her in consultation. At that time it had extended to the chest. The post-cervical glands were visible but were not as far back as syphilitic glands usually were, or as far front as tubercular glands were. Behind the ears at the margin of the hair were several very large glands. When seen on Monday the eruption had entirely disappeared, but the glands had still been enlarged. The

history was that the eruption had disappeared on the ninth day after vaccination on the leg. The vaccination had been a typical one. He would like further light on the case.

Troublesome Vesicular Eruption Cured by Circumcision.—DR. L. DUNCAN BULKLEY said that some ten years ago he had had under his care a physician with chancre on his finger. His wife had also been infected. Subsequently they had had a healthy child. About three months ago the child, aged four months, had come to him with a vesicular itching eruption on the legs and abdomen. The pruritus had been so severe as to interfere with sleep. He had excluded syphilis at once, the eruption being simply vesicular, and also with no tendency to run into eczematous surfaces, even after scratching, and he had regarded it as a reflex herpes. He could find no other cause but a long and adherent prepuce. He had, therefore, advised beginning treatment by performing circumcision, no other treatment of any kind being given. One month later he had learned that within three weeks after the circumcision all traces of the eruption had disappeared, and that it had not returned. The eruption had lasted for four months previously, and had resisted all local treatment. It was one of the most striking instances of reflex eruption that he had ever encountered.

Lesions on Mucous Membranes in Dermatitis Herpetiformis.—DR. KLOTZ asked for information whether bullæ or other lesions of the mucous membranes were ever observed in dermatitis herpetiformis. It seemed to him a matter of great importance for the differential diagnosis from pemphigus. He had, in vain, sought for information on the question in a number of books, including Dr. Duhring's new work.

A Case of Periodical Superficial Detachment of the Corneous Layer of the Epidermis of the Palms, the Fingers, and Sometimes of the Toes, That May Be Called a Very Superficial or Abortive Cheiropompholyx or Pompholyx.—Presented by DR. KLOTZ.

The patient is 47 years of age, a civil engineer and draughtsman, and enjoys excellent general health. The attacks on the hands begin with the sensation of dryness and heat, the surface feels dry, somewhat rough and hard to the touch, but the natural ridges and furrows of the surface are nowhere disturbed. After a few days the epidermis assumes a slightly darker color and soon becomes detached on several places. Sometimes particularly on the fingers minute vesicles can be distinctly seen; on several occasions a very small quantity of a clear fluid would ooze out if the vesicle was pricked with a fine pin. Where the thin, usually but small shreds of corneous epidermis have been removed, the surface appears entirely dry and normal, only slightly red, soft, with the normal configuration of the surface. This superficial desquamation gradually extends over the entire palm, and may repeatedly take place on the same regions, on the fingers and toes it usually remains circumscribed. At no time would any moist surface be observed. Itching is usually absent.

The affection appeared first in March, 1891, as a circumscribed patch of thickened epidermis about the size of silver dollar on the right palm, which I at first attributed to the frequent carrying of a walking-stick. It continued, however restricted to the right hand, throughout the summer and fall, in December it had entirely disappeared. In April, 1892, the affection returned and lasted until July. In August the patient went to Cuba and remained there till March, being

engaged in building a railroad near San Pago; during all this time there was no sign of the disease, but in May, 1893, the vesicles and the superficial desquamation appeared for a few weeks, ceasing after June. In 1894 there was a very mild and short outbreak in December, and in 1895 only a few slight traces. In 1896, however, desquamation began in April, and lasted until August, attacking both hands and several toes. It again commenced in April, 1897. Pilocarpin in moderate doses given internally apparently had not much influence, the hands remained dry while perspiration was distinctly visible on the rest of the body, the desquamation, however, did last only until the middle of June. In 1898 the affection lasted from April until August, and in 1899 it began again toward the end of March on both hands.

Local applications of salicylic acid, resorcin, etc., in ointments or in plasment have had but slight influence, a mixture of equal parts of lanolin and vaselin seems to relieve the slight inconvenience about as well as any other remedy.

Note.

"AS OTHERS SEE US."

NEW YORK DERMATOLOGICAL SOCIETY.—We of the western border of the Western Hemisphere, so far away from what New Englanders would call civilization, need not be totally discouraged at some of our own shortcomings in the practice of dermatology, when we read the transactions of the New York Dermatological Society, only to find that several cases are often presented for *diagnosis* at a single monthly session of that learned body. It contains the peers of any dermatologists in this or any other country. And great men still differ.

It is said that a London medical society has reserved a number of meetings in each year, which will be devoted to a recital of unfavorable cases and to a confession of errors in diagnosis and treatment fallen into by members of the society.—(*Pacific Medical Journal*.)

Selections.

GENITO-URINARY DISEASES.

Nature of the Gonococcus.—SCHOLTZ (*Arch. f. Derm. u. Syph.*, Bd. XLIX., No. 1) has made a systematic study of the gonococcus from all points of view.

Culture experiments having been unsatisfactory, on the whole, Scholtz has endeavored to improve the technic in this respect; and his opinion is that positive results may almost invariably be obtained by using as a culture medium a mixture of either agar or bouillon combined with some kind of human serum (blood-serum, ascitic or pleuritic fluid, etc.). Scholtz was successful in fifty consecutive cases. In cases of recent, untreated gonorrhea he obtained pure cultures of gonococci, while in numerous cases of the disease which had been treated, and in the discharges of which the microscope failed to show any gonococci, the culture method invariably demonstrated the presence of the micro-organism. In gleet it may first be necessary to free the urethra from numerous saprophytes by using injections of silver nitrate, after which the gonococci, which grow at a greater depth in the mucosa, may be demonstrated. The gonococcus may be readily recognized by its form and arrangement and tinctorial qualities. In doubtful cases, the propriety of making a physiological test by inoculating the human urethra is to be questioned; and Wasserman has perhaps succeeded in introducing a substitute test upon animals. This author has found the white mouse especially adapted to reveal the presence of gonococci through the intraperitoneal test. The present author has experimented upon white mice, guinea-pigs, and rabbits, using five different generations of gonococci; and he has found the guinea-pig to be the better subject. Upon injecting a few c. cm. of an emulsion of gonococci into the peritoneal cavity, death resulted in from twenty to thirty-six hours, with characteristic post-mortem appearances. The spleen was slightly tumefied, while the peritoneal cavity contained serum or pus. In cases which perish early, the gonococci may be recovered by culture from the intraperitoneal fluid. Injection of dead gonococci produces the same phenomena as when the living germ is used, showing that the toxins are the actual morbid agency.

If an emulsion of gonococci is injected into the veins of a rabbit, there results a rise of temperature and loss of weight. If the method of subcutaneous injection is employed, there is also some local infiltration and slight necrotic change. Attempts to inoculate the conjunctiva, vagina, etc., of these animals have always proved fruitless, although if the gonococci are introduced into the anterior chamber of the eye suppuration may result.

We must now discuss the toxic principle, which is able to produce results even in the presence of dead cultures. The principle is not an independently secreted toxalbumin, but rather a bacterioprotein, which is retained in the substance of the cocci as long as the latter are alive. After the death of the cultures, the filtered substance is capable of producing profuse suppuration in the human urethra.

The ordinary pyogenic cocci (staphylococcus, etc.) lack the ability to take deep root in the urethra which is possessed by the gonococcus. This property of the latter to settle and flourish in epithelial tissue is quite characteristic.

However, the study of the past few years has shown that the gonococcus is something more than a mere epithelial parasite, but is able, in a certain percentage of cases, to give rise to metastases and genuine pyemia. We know that it may attack the peritoneum and pleura, the endocardium, synovia of joints and sheath of tendons, and that it may even cause subcutaneous abscesses.

The author summarizes his study as follows: The culture medium already described is far superior to any other for the cultivation of the gonococcus. The effects produced by the coccus on animals are toxic and not infectious in nature. Dead cocci are able to incite arthritis through the bacterioprotoxin, which is set free by the dissolution of the germs. The gonococcus is able to cause genuine phlegmon in the subcutaneous tissue, as well as true metastases by propagation along the blood or lymph channels.—(*Med. Rev. of Reviews.*)

Three Cases of Total Emasculation for Cancer of the Penis.—DR. J. PANTALONI (*Arch. prov. de chir.*, Oct., 1898. Abstract in *Annales d. mal. d. org. génito-urin.*, p. 634, 1899). The author makes a complete review of the literature, tabulates 22 cases, including three of his own of which he gives the details. In reviewing the recent French literature he points out that Mousarron and Carbonell each attribute the conception and performance of this operation to Paci of Italy who operated in 1877, and published in 1880, having apparently overlooked the operation done by E. Annandale of Edinburgh in 1873, and published in 1874, of which case the author gives the abstract. Annandale, with the exception of separate suture of the divided urethra to the perineum, which he either left in the wound without suture or omits exact description of this detail of the operation, practically did the operation as it was carried out later by Paci.

The 3 cases of the author are as follows:

CASE I. Cancer of Penis Recurring after Partial Amputation; Extension to Scrotum.—Cancer of the Inguinal Gland.—Extirpation of the Inguinal Glands.—Total Ablation of the Genital Organs. Recovery from the Operation.—Death Later from General Carcinosis.—The patient, 56 years old, in May, 1895, had had partial amputation of the penis for cancer. There was recurrence toward the end of the year. When he came into the author's hands, there was at this time an enormous tumefaction of the remainder of the penis and the entire scrotum. The latter was transformed into a sort of hard skin, edematous, ulcerated in places from contact with pus and urine. The corpora cavernosa were infiltrated, throughout, and presented hard nodules. The urethral orifice opened at the bottom of the tumefied scrotum and from it passed constantly fetid pus. The perineum was intact. The inguinal glands of each side were involved. The sufferings of the patient were intense and were aggravated by each act of micturition, often there were very painful erections. The patient was willing to have anything done to rid himself of his suffering.

Operation.—1. An incision was made extending from one antero-superior iliac spine to the other curving downwards along the crural arches and the pubes. Removed of all the glands appreciable to eye and touch. Section of the spermatic cords as high as possible and separate ligation of the vessels.

2. The patient was then placed in the lithotomy position, the scrotum was raised and the urethral canal dissected out, cut off and laid back toward the anus.

An elliptical incision was made passing from the pubes surrounding the scrotum ending at the perineum. The scrotum and roots of the corpus cavernosa, the distal portion of urethra were rapidly cut away close to the bone; forceps were placed on the bleeding points and left till the end then removed by torsion. No ligatures.

3. The urethra was sutured with horse-hair to the lower angle of the wound, and a soft catheter placed *à demeure*. Iodoform-gauze drain was placed above and the remainder of the wound closed by horse-hair sutures. The whole was covered by a thick dressing, allowing the catheter to emerge, and compression applied by a bandage.

The gauze drain was removed on the third day; the catheter and sutures on the ninth day. Primary union.

There was complete relief from pain, sleep was regular, and appetite returned. Patient died from generalization on the 6th of June, 1896.

CASE II. *Epithelioma of Penis.—Total Emasculation.—Recovery.*—The patient, 39 years old, had had his trouble for a year, which began as a small node on the surface of the glans, beneath the prepuce. It was treated by local applications without effect when the patient applied to the author. When seen by the latter the glans and prepuce were almost entirely replaced by a sanious, fetid ulceration. A minute orifice allowed a small stream on micturition, which was very frequent and painful and accompanied by painful erections. Sleep was interfered with, and patient was emaciated.

Operation.—A Y-shaped incision was made embracing the scrotum within its branches, and beginning at the iliac spine, ended within two-fingers' breadth of the anus. The inguinal glands were cleaned out. The corpora cavernosa were dissected off close to the pubes and the urethra divided at a thumb's-breadth in front of the symphysis. The wound was closed with horse-hair sutures and the urethra sutured at the lower end of the wound. Sterilized gauze was used below the symphysis for compression and drainage. No ligatures. Catheter placed in the bladder, and a compressive dressing applied.

The patient was out on the 12th day and complete cicatrization on the 20th day. Patient when seen a year later was well, had no suffering, no recurrence could be noted and patient was satisfied with his condition.

Examination of the tumor showed epithelioma beginning in the integument and propagating along the blood-vessels.

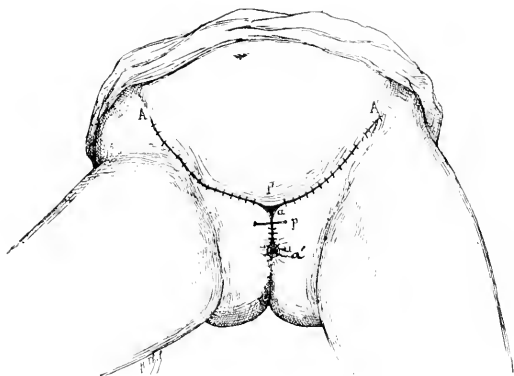
CASE III. *Cancerous Tumor of the Penis.—Total Emasculation.—Recovery.*—Patient was 63 years old, had enjoyed good health till the year before when he began to have a purulent secretion from beneath the prepuce which was long and had a narrow opening. The discharge was accompanied by pain on urination which was not diminished by the subpreputial injection which patient had used. A physician whom he consulted practised circumcision and then the true cause was discovered. Upon the glans penis was a small ulcer with an indurated contour. He then tried cauterization, which failed. Suppuration and pain continued. When seen by the author there was a certain amount of cachexia. The penis terminated in a sort of crater-shaped extremity, infected, and secreting sanious pus mixed with urine, hair, and absorbent cotton, from which there was a repulsive odor. It was impossible to recognize either glans or meatus. The scrotum and furrow of the penis, soiled with urine and pus, were edematous. There was loss of sleep and appetite.

Operation—1. The patient, shaved and scrubbed, was placed on the table, a cushion was placed beneath the buttocks, the thighs well separated. A stout silk

ligature was tied tight around the penis as close to the pubes as possible. The penis was severed with stout scissors in front of the ligature which removed all the focus of infection.

2. A curved incision passing by the pubes and the crural arches united the two iliac spines. The left inguinal region was explored and found intact. The cord was sought for and divided and followed up within the inguinal canal where the vessels were ligated and divided. On the right side the enlarged inguinal glands were removed; with the surrounding tissue. The cord was treated exactly as on the left side.

3. The scrotum was raised and surrounded by an incision passing to within two-fingers' breadth of the anus, and terminating above on each side of the pubes. The urethra was divided in the perineum 2 centimeters from the anus, and dragged downwards. The corpora cavernosa was rapidly divided with scissors



A, A', Iliac spines; P, Pubes; P', point of deep suture; a, surface not covered by skin; a', urethra.

close to the bone; then the wound was forcibly tamponed with compresses.

4. The inguinal wound was sutured with horse-hair and the urethra united to the skin of the perineum with five points of suture; the compresses were then removed and a curved needle was passed deeply into the tissues close to the inferior border of the pubes including the skin on each side of the wound, and the ligature tied. The points of suture are shown in the cut.

Hemostasis was perfect. The portion of wound in front of pubes which could not be closed was tamponed. A soft catheter was passed into the bladder.

Stitches were removed on the eighth day. Primary union. Patient rapidly improved and is in perfect health. Too short a time had elapsed, however, when the report was made, to know whether there was likely to be recurrence.

The author favors total emasculation in cancer of penis to simple complete removal of penis, leaving the testes, though he admitted that the desirability of

leaving the testes is not yet settled. He believes that if they are left that there is tendency to hypochondria.

Of the cases tabulated, in four only has sufficient time elapsed to judge of the final outcome. In these four cases there has been no recurrence.

Primary Malignant Disease of the Prostate Gland.—E. HURRY FENWICK,
F.R.C.S. (*The Edinburgh Med. Jour.*, p. 16, July, 1899).

The author presents his views from a clinical study of 50 cases which have come under his observation, desiring criticism, correction, or acceptance. He prefers to divide these growths according to their clinical picture into two groups: (a) the hard malignant growth, resembling mammary scirrhus; (b) the soft malignant growth, much more rare, resembling mammary "encephaloid cancer." Between these two groups a mixed form is occasionally met with.

A. In the primary hard malignant growth there are three pronounced stages, and the transition from the first to the second stage is often strikingly abrupt. In the first stage, to the examining finger it feels like a buried stone, in one or other lobe (71 per cent. of cases), at first it does not project, while the opposite lobe is healthy. Soon the latter becomes dense of a woody feel, but the interlobular sulcus remains. In time the prostatic capsule becomes more and more tense.

The onset (60 per cent.) began by frequent urination, loss of stream-power, straining to empty the bladder; in 16 per cent. the first noticeable symptom was retention, in 4 per cent. incontinence. As this disease occurs most frequently between 50 and 60 these symptoms of prostatic obstruction lead to the diagnosis of simple prostatic hypertrophy.

The second stage, or "latent" period is due to capsular rupture, when a sudden relief from all symptoms is experienced and the patient feels well. This rupture takes place at the junction posterior and upper aspect of the prostate where it joins the seminal vesicle. By rectal feel the dense prostatic lobe is flattened and elongated and apparently fused with the seminal vesicle. In the actively malignant cases this second stage is of short duration, the harder and more indolent the growth the more delayed is its appearance, and the longer its duration. In the softer forms the capsule gives way gradually and the change is not so noticeable.

The third stage is marked by rapid emaciation, involvement of the pelvic and abdominal lymphatics causing pressure on nerves and vessels. Sciatic pain due to this, also unilateral renal pain. Hemorrhage occasionally occurs, and may be profuse, and marks the invasion of the mucous membrane of the bladder base.

This train of symptoms is classical of hard malignant disease of the *virgin* prostate. When carcinoma attacks a chronically inflamed prostate there is no typical clinical course and difficulties of diagnosis are much increased.

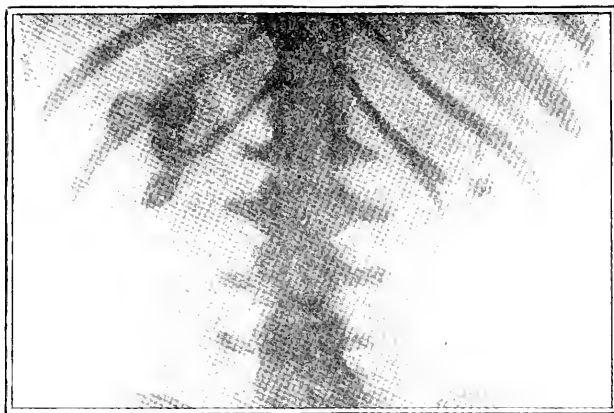
The only treatment advised is entirely symptomatic. Drugs. Catheter when amount of residual urine is large. Suprapubic drainage when there is much bladder spasm—perineal drainage never. Prostatectomy the author does not go into believing it to be but seldom practicable.

The duration of life in this form lies within three years from start to finish.

A large amount of residual urine, with absence of hemorrhage denotes that the march of invasion is away from the mucous membrane of the bladder, there will be then less suffering on the part of the bladder and more suffering from secondary deposits pressing on nerve, trunks, etc. While repeated small hemor-

rhages early in the case mark invasion of the prostatic urethra and if the catheter be used, followed by copious hemorrhage and rapid failure from septic absorption and ascending renal changes.

B. *The very soft malignant type*, is much more rare—the author had 6 cases in 50. The growth is very rapid and the first indication being rectal obstruction. The growth rapidly becomes enormous. These cases die quickly of sepsis. They are generally diagnosed as prostatic abscess at the outset.



Skiagraph showing Renal Calculus. The only successful picture, according to Albarran, ever taken in France from the living subject. A full account of the case will be found in the Sept. issue of the *Journal*, p. 435. (Reprinted from *Annales des Maladies des Organes Genito-Urinaires*.)

Three Cases of Ureteral Calculi Impacted in the Lower End of the Ureter, and Removed by Suprapubic Cystotomy.—E. S. BISHOP, F.R.C.S. (*Edinburgh Med. Jour.*, p. 47, July, 1899).

CASE I., was a boy 13 years old. Had had symptoms of vesical calculus for a long time. The calculus could be felt with a searcher but seemed to have a fixed position. The bladder was opened above the pubes and the stone which was projecting from the mouth of the ureter was removed by the finger with the aid of a small Volkmann spoon. The stone was composed of borate of ammonia at its center, covered by spiculate crystals of oxalate of calcium. The bladder wall was sutured to the skin. In two months the healing was complete.

CASE II., was a woman, 35 years old. Menstruation began at 15 and was regular up to July, 1897, when both ovaries and tubes were removed by a surgeon in the country. Married for 13 years, no children and no miscarriages. At 13.2 years

before menstruation began, she had almost constant pain in the left side for 2 years. After menstruation was established this pain was always worse at these periods which probably led to the removal of the ovaries. The paroxysms, however, continued after the operation, characterized by pain shooting down the ureter, accompanied by frequent and ineffectual attempts at urination and after subsidence of the pain there would be free passage of a large amount of urine. On examination there was pain on pressure over the left kidney, no palpable enlargement, urine contained albumin, blood-cells, and crystals of oxalate of lime. By the vagina nothing could be felt, but by rectal touch a small hard mass was felt below and to the left of the uterus in the line of the ureter, and a diagnosis of impacted calculus was made. Under an anesthetic the urethra was dilated and the finger introduced into the bladder could feel the rough end of the calculus. Suprapubic cystotomy was done, the left ureter was slit up a short distance in the stone and stone removed. The calculus was oxalate of lime and weighed 100 grs. Bladder and abdominal wound closed. Death from anuria in 48 hours.

CASE III. was a boy, aged 7, had had pain at the end of penis since babyhood. Had been twice sounded for stone and none found. Under ether vesical calculus was found. Suprapubic cystotomy and removal of vesical calculus, bladder wall and abdominal wound united, operation followed by fever, 6 oz. of pus from beneath the muscles after removal of sutures. Urine alkaline. Eight days after operation, there was pain in right kidney followed for 3 days by renal colic. By the rectum a fixed hard body was felt on the right side at base of bladder. The wound was opened up and in the mouth of the right ureter a stone was found, on its removal there was a gush of pus from the ureter. This operation was followed by a fall of temperature.

Although in the female the preponderance of opinion favors removal by the vaginal route of calculus impacted in this position the author thinks it was not feasible in his case as the stone could not be located by vaginal touch. And he is inclined to favor the suprapubic route in these cases as the readiest and safest.

Tuberculosis of the Kidney as an Indication for Nephrectomy.—EDWARD REYNOLDS, M.D. (*Med. News*, p. 199, August 12, 1899).

The author reports 4 successful cases of nephrectomy for this condition and strongly advocates the operation in properly selected cases. On 3 of the cases simple nephrectomy was performed, as it has generally been noted that even if there is a tubercular process left behind in the ureter it disappears under the retrograde changes which take place in the ureter after removal of the kidney. Still he leans toward nephro-ureterectomy on account of the continuance of urinary suffering during convalescence in some cases which he attributes to distention of the stump of the ureter by retained secretions.

He notes that these patients were brought to him by their physicians for the relief of urinary discomforts and as afflicted with moderate debility and not with the idea that there is present a serious disease. Three of the four patients had tuberculous family histories, further the long duration of the affection before coming to a specialist. Eight years was the duration of one case, the least advanced, another case had endured 20 years of suffering. Two cases had hematuria, with this exception the history of all consisted of long-continued debility, frequency and discomfort of urination and sometimes pain and tenderness referable to one kidney or ureter, and curiously not infrequently the pain and discomfort are referred to the sound side.

The method of investigation was careful palpation over both kidneys and ureters, including the vesical extremities of the latter; a visual inspection of the bladder; if there are no definite lesions of the latter both sides are catheterized and the separated urines submitted to an expert for microscopical examination including staining for bacilli and the injection of a portion of each sediment into a separate guinea-pig.

The first patient had had attacks of urinary frequency for 5 years. Pain and tenderness over the course of left ureter for a year. General health poor but was not confined to her room except during the attacks. When seen she was urinating every twenty minutes during the day and 5 times at night. Much pus in the urine. General inflammation of the bladder, redness and erosion about the left ureteral orifice and polpi about the internal orifice of the urethra. Local treatment of the bladder relieved her symptoms, but had to be continued. The left kidney was removed, found to be small and was practically a shell, filled with cheesy pus, and contained very numerous tubercle bacilli. After nephrectomy there was a complete return to health which continues (18 months after operation).

The second case had suffered for 8 years dating from an attack of hematuria, 5 years after this a second attack, and a third when seen by the author. Family history tuberculous. Her only other symptoms were slight frequency during the hemorrhages and some backache and bearing down in the intervals. The bladder was normal but there was blood oozing from right ureter. Tubercle bacilli were not found by microscope but the guinea-pig inoculated from the right side developed tuberculosis, the other one remained well. All symptoms were relieved at once by the operation and patient gained in every way. The pelvis of the removed kidney contained numerous milary tubercles.

The third patient was a patient of Dr. Garceau of Roxbury, when seen had already had a nephrectomy performed by him. Family history negative. Symptoms had lasted 1 year before operation. There had been pain and tenderness over the left kidney and ureter, and pain on left side when lying in bed, referred to the neck of the bladder. Great frequency of urination. Ulcerations of the bladder had been curetted by Dr. Garceau. When seen by the author she was still feeble and emaciated, had irregular fever apparently due to the remaining ureter stump and the outlook was not favorable. The ureter stump was removed by Dr. Garceau which was followed by almost complete recovery, but a year later a few ulcerations returned to the bladder and she is again under local treatment.

The fourth patient had a tubercular family history, her history covered 20 years, severe left-side colic, heart frequency. The bladder was studded with tubercular lesions which was in 3 months, by careful treatment by her physician, Dr. McDonald, brought to a normal condition. On palpation the vesical end of the right ureter was thickened, though the pain had always been referred to the left side. Catheterization of the ureters by the microscope, no bacilli found; a guinea-pig inoculated from the right side developed the disease while the other animal remained sound. There was stringy mucus from left side. Repeated catheterization yielded same results. Nephrectomy of right kidney. Pain from left side disappeared, also the frequency. Patient improved, but the time is too short to judge of ultimate result. The removed kidney contained two small tubercular abscesses.

Retention of Testicles, with Report of Cases.—DR. L. L. HILL (*Med. News*, p. 202, Aug. 12, 1899).

CASE I., aged 24, had retained testicle in inguinal canal and an irreducible

inhomoele. Patient refused to consent to removal of testes. Operation for hernia and as the cord was too short to admit attempt to bring down, testis was returned to the abdominal cavity. It is now 3 years since operation and patient has had no return and no discomfort.

CASE II., aged 25, had a rudimentary scrotum and both testicles retained in inguinal canal, testes were small. Operation advised. Testicle of one side exposed, downward traction made and while protecting the vas, vessels, and nerves the other structures of the cord were cut transversely, the finger was pushed down to the bottom of the scrotum and the testes carried down and sutured at the bottom. The inguinal canal closed and the cord was sutured to the pillars of the external ring. After healing, the same thing was done to the opposite side. The testes and scrotum after operation increased in size to natural dimensions.

CASE III., age 6, had undescended testes on right side, history of repeated traumatism and swelling of testes accompanied by epileptiform convulsions. Same operation as in Case II. Result perfect and no return of nervous phenomena.

An Effective Treatment of Vesical Hemorrhage When Caused by Papillomatous Growths.—H. I. HERRING, M.B., B.S. (*Brit. Med. Jour.*, p. 263, July 1899).

Following a suggestion and method of treatment devised by Sir Henry Thompson the author details 12 cases of true papillomatous growths, the majority of which were vastly improved and cured by injections of gradually increasing dosage of silver-nitrate solution. First inaugurated by the physician, afterwards carried on by the patient himself after he had learned the technique.

The diagnosis is established by microscopic examination of specimens caught in the fresh state. The sessile tumors as a rule do not react so well as the pedunculated.

The instruments needed are: a No. 7 E. soft, slightly coudeé catheter, eye near the tip. A four-ounce india-rubber bottle with a brass tapering nozzle and stop-cock. A standard solution of 1 gr. of silver nitrate to 5i. of aq. distill. acidulated with a little free nitric acid. He begins with $\frac{1}{2}$ a dram of this standard sol. (i. e., $\frac{1}{2}$ gr. of silver) to 4 oz. of water, heated to 66° F., and the strength is gradually increased until 1 and even 2 drams have been added. He has never exceeded two drams. No pain should be awakened by the strength of the solution. Asepsis in all details should be attended to. When bladder becomes irritable decrease the dose. Half the contents of the rubber bottle is thrown in at a time, retained a short time and allowed to flow out, and repeated with the second half. This should be done daily preferably at night, followed by rest. Treatment should be continued 3 to 6 months daily, then the intervals may be lengthened, sometimes treatment may then cease, sometimes must be again renewed. Sometimes it at first increases hemorrhage, which then gradually ceases. In some cases it never entirely ceases till treatment is stopped when it may cease definitely.

Remarks on the Treatment of Impermeable Stricture of Urethra by Excision and Suture of Divided Ends.—F. DEANESLY, M.D., F.R.C.S. (*Brit. Med. Jour.*, p. 267, July 29, 1899).

The author reports a single case, patient, age 52, had had light stricture many years, 20 years before had an external urethrotomy performed. In May, 1898, had not passed water for 48 hours, though by the aspirator 2 pints had been drawn

off the previous day. The stricture seemed impermeable. Under ether, the bulb was exposed by a longitudinal incision from the root of the scrotum nearly to the anus. The bulbo-cavernosus muscle was split and drawn aside, the stricture could be felt as a hard and gristly mass $\frac{1}{2}$ inch in length. The urethra was separated from its attachments on each side and traced back between the layers of the triangular ligament. The membranous portion was thickened and dilated behind the stricture. Hemorrhage. An incision was made into the membranous portion and soft catheter passed and over a pint of urine withdrawn. A second opening was made into urethra in front of stricture. The indurated mass of stricture with $\frac{1}{4}$ inch of healthy urethra was excised, a soft catheter passed through whole urethra into bladder. The divided ends of urethra were sutured with silkworm gut, the first through the roof passing through all of the tissues, the remaining sutures including only the muscular and spongy coats. The ends were left long and brought out of perineal wound, except the first which were cut short. The bulbocavernosus muscles was sutured but the skin left partly open. A Cathart exhaust apparatus was attached to the catheter which was left in place for 10 days, and after this the catheter was passed for a while, the patient passing it himself. No fever. The sutures gradually came away. There is a small sinus left, caused by the suture cut short which did not come away. There is complete absence of stricture, the urethra carrying a full-sized sound.

1. **Gonorrheal Urethritis in Small Boys.**—GEORGES BOGDAN and V. TONERWOL (*Journ. des mat. cut.*, No. 6, 321, 1899).
2. **Largin as a Remedy for Gonorrhea.**—SLARK (*Monat. f. Prak. der.*, Vol. 28, p. 511, 1899).
3. **Largin in Female Gonorrhea.**—L. FURST (*Dermat. Ztschr.*, Vol. VI., p. 38, 1899).
4. **The Value of Salosantali (Salosantal) in Internal Treatment of Urinary Diseases.**—L. HAHN (*Dermat. Ztschr.*, Vol. VI., p. 49, 1899).
5. **Diagnosis and Treatment of Gonorrhea in Women.**—ADOLPH CALMANN (*Dermat. Ztschr.*, Vol. VI., p. 433, 1899).
6. **Bacteriological and Histological Researches Regarding Bartholinitis.**—P. COLOMBINO (*Arch. f. Derm. and Syph.*, Vol. 48, pp. 33, 94, 220, 240, 1899).
7. **Two Cases of Isolated Gonorrhea of Para-urethral Ducts.**—M. REICHMANN (Chicago) (*Arch. f. Derm. and Syph.*, Vol. 49, p. 91, 1899).
8. **Contribution to the Biology of Gonococcus.**—W. SCHOLTZ (*Arch. f. Derm. and Syph.*, Vol. 49, pp. 3-29, 1899).
9. **A Study of the Toxins of Gonococcus Based upon Experimental Investigations.**—RODOLFO PANICHI (*Gior. Ital. Mal. Ven. e. d. Pelle*, No. 3, pp. 252-275, 1899).
10. **Joint and Nervous Diseases Due to Gonorrhea.**—DR. RUDOLPH BLOCH (*Arch. f. Derm. and Syph.*, Vol. 48, p. 349, 1899).

Regarding gonorrheal urethritis in small boys Bogdan and Tonerwol are of the opinion that (1) "urethral gonorrhea in small boys happens oftener than it is usually believed; that (2) in boys with a long, straight prepuce the gonorrheal infection is transmitted by the prepuceal orifice, giving rise firstly to a primary gonorrheal balanitis and later to an urethritis by further propagation; that (3) outside of a direct contagion by the way of sexual contact, we have an indirect mode of transmission of the disease by sharing the same bed, by using dirty

linen, etc., ways not hitherto described. Usually indirect infection takes place by way of the prepuce; that (4) there is no difference between the course, prognosis, and treatment of gonorrhea in boys and gonorrhea in adults, although complications occur less frequently; and that (5), owing to the possibility of an indirect transmission of the disease, the presence of gonococci in urethral secretions of small boys does not always absolutely prove an attempt of assault; other signs are necessary to establish the latter.

Largin in $1\frac{1}{4}$ -1 per cent. solutions is considered by Stark as a good remedy in acute anterior gonorrheal urethritis, but it is less useful in posterior urethritis, he even would consider it as a preventive remedy, judging from satisfactory results obtained in one case of gonorrhea.

More enthusiastic about the usefulness of largin is Furst, who treated eleven cases of gonorrhea in women, making the gonorrhea disappear in five days and removing the inflammatory catarrhal symptoms in sixteen days. These good results can only be obtained when the patient begins treatment right after infection and remains in bed for the period of treatment. Unnecessary manual or instrumental examinations are to be avoided and the upper and not lower genital organs must be first attended to, as only by such action can an ascending gonorrhea be guarded against. Largin has all the properties of protargol, containing in addition more silver (11.01 per cent.) and destroying the gonococci in ten minutes, if a $\frac{1}{4000}$ solution be used. Furst used 5-10 per cent. solution in the form of irrigations without any local or remote injury, beginning with $\frac{1}{4}$ per cent. daily and gradually increasing the percentage of largin.

According to Hahn's opinion good results are obtained in acute and chronic cases of gonorrhea, especially in complicated cases, from the use of the oil of salisantal, a combination of salol and santal oil. Hahn used the preparation in more than one hundred cases, administering salosantal in drops or in capsules up to 2.50 grms. daily. The remedy is cheap and can be used in outdoor practice.

Gonorrhea in women is most obstinate and unyielding. Calmann in an exhaustive study presents the course, localization, and treatment of gonorrhea in women. In gonorrhea of the urethra he obtained good results from prolonged warm bladder and urethral irrigations with 1 per cent. protargol solution in the beginning of the process, and $\frac{1}{2}$ to $\frac{1}{1000}$ nitrate of silver solution in the end. The frequent involvement of the Skene glands he treated successfully with electrolysis, with a platinum needle. In several sittings a cure was obtained without abscess formation by using only 2-5 ma. In Bartholinitis a single and only rarely a repeated injection in the duct of 5-10 per cent. nitrate of silver by means of a cannula and a Gravatz syringe gave good results, but excision is the best and a radical remedy.

In endometritis he obtained satisfactory results from using either a 50 per cent. solution of chlorid of zinc once monthly in cases of prolonged secretion combined with erosions and hemorrhages. In very many chronic cases where gonococci were found with difficulty he used a concentrated solution of formalin, but in most cases tincture of iodin applied 2-3 times weekly was used with benefit.

The author lays a special stress upon the fact that in treating gonorrhea in married women, the condition of the husband must be inquired into and his gonorrhea treated, and only when both are cured, the physician can expect a permanent cure.

From a bacteriological and histological examination of cases of bartholinitis, Colombini draws the conclusions that

1. Bartholinitis is not always of gonorrhoeal origin, but
2. Gonorrhea is the cause of it in two-thirds cases, and
3. Gonococci are not constantly found during examination, being if found more often in the beginning of the duct and less in the deeper parts of gland, usually associated with other microbes as staphylococcus aureus and albus, especially with the former.
4. In cases where gonococci are not found any longer and in cases of non-gonorrhoeal origin, the usual pus-producing microbes are present
5. All other causes as injury, occupation, can be regarded as predisposing conditions only.
6. Usually in Bartholinitis we have to deal with an inflammation of the excretory ducts of the gland, which present (7) a large proliferation of epithelial cells, a small-cell infiltration (8) of the surrounding tissue, which entirely envelopes the ducts, leading (9) to formation of abscess near the ducts. This explains the pathogenesis of recurring glandular abscess and favors the complete enucleation of the gland as the best treatment. The same disposition and occurrence of gonococci as in bartholinitis were found by Reichmann in two cases of isolated gonorrhea of para-urethral ducts, where no discharge was noticed from the urethra. While gonococci were abundant in the discharge and present in sections coming from the beginning parts of the duct, they were absent in sections of the deeper portions. The gonococci were found inside and outside of polynuclear leucocytes which covered the epithelial cells, and lay between the desquamated flat epithelial cells. The flat epithelial layer in the ducts was lost, giving way to leucocytes, which composed the upper stratum. An invasion of leucocytes could be noticed in all epithelial layers, masking the character of the cells. The adjacent connective tissue was greatly inflamed. Excision is best remedy.

Scholtz undertook a series of experiments in Neisser's laboratory in order to simplify the procedure of cultivation of the gonococcus, to study the pathological action of gonorrhea upon animals and to classify the pathological rôle of the gonococcus in human beings by exact pathological and clinical observations. The results of his observations and researches can be embodied in the following conclusions: (1) The best medium for cultivation is a mixture of serous human liquid with agar or bouillon. (2) Upon animals—guinea-pigs, white mice, and rabbits are not infected by gonococci, but it produces a toxic effect upon them. The toxic action comes best into view when injected into the peritoneum. The bodies of the gonococci contain the toxin. Devitalized gonococci when introduced in human urethra produce a passing purulent effect; the same takes place when devitalized staphylococci are introduced. (3) In certain conditions the gonococcus can take hold of connective tissue and evoke there an inflammation and purulent discharge, even true phlegmon. Lastly, the gonococcus in not very rare instances is carried by the lymph and blood streams to remote portions of body, giving rise to endomyocarditis, as well as to metastasis in joints, tendons, and skin.

Panichi from his experiments draws the conclusions (1) that the irritative effects produced upon the human urethra by the excretions of gonococci are essentially due to the eliminated toxins; (2) a urethra which does not react or reacts very little with inflammation against the gonococci, is always sensible to its toxins when applied locally, and this reaction is obtained in every stage of gonorrhea; (3) that the amount of inflammation produced artificially in the urethra by injections of liquids rich in gonococcal toxins, is not only antagonistic

to the infective process, but a salutary action seems to be produced by such repeated injections. Whether this fact can be regarded as an effect of successive reactions provoked by the urethra upon the gonococcus, or as direct action of the toxin upon the infective agent, the author cannot decide. (4) The gonorrheal toxins can be used for diagnostic and therapeutic purposes.

The case reported by Bloch can be regarded as a strong corroboration of the last point. In a patient with acute urethritis on the 17th day of the disease suddenly developed severe pain in the middle and upper portion of the right thigh, giving rise to coxitis and gonitis, accompanied with pain along the track of sciatic nerve. During the fifth week of the disease the left knee became involved and pain appeared in both arms. Hand in hand with the exacerbations of the gonorrheal process the rheumatic symptoms are aggravated and with the remission of the gonorrheal process the pain and fever decreased. Although the author was not able to demonstrate gonococci in the joints, he regards the complications as due to gonorrhea, basing his deduction upon the complex of symptoms and failure to obtain any benefit from salicylates or nervines.

CUTANEOUS DISEASES AND SYPHILIS.

Partial Hyperidrosis.—KAPOSÍ (*Wien. klin. Rundschau*, March, 12, 1899) showed the following case before the Vienna *k. k. Gesellschaft der Aerzte*. A boy, aged 15, had from his earliest childhood perspired at the tip of the nose. The area involved steadily increased until, when he was 8 years old, the lips, ears, chin, nose, neck, the flexor and extensor surfaces of the upper extremities to the wrist, and the anterior and posterior surfaces of the thorax as low as the sixth rib were affected. In the last seven years the progress had been slower, the area of hyperidrosis now reaching a finger's breadth below the ribs. Any cold stimulus, acting on the skin or mucous membranes, such as a draught of cold water, caused an outbreak of sweat, which did not begin simultaneously in the different parts, but followed a definite order. The tip of the nose was first affected, then the chin, forehead, submaxillary region, extensor surfaces of the arms, and lastly, their flexor surfaces. These sweating areas, small at first, would quickly enlarge, until almost the whole of the upper part of the body would be bathed in perspiration, the drops on the sternal region being often as big as hazelnuts. The scalp and back of the neck were normal. There was considerable cyanosis of the peripheral parts, such as the nose, ears, and fingertips. Warmth prevented the perspiration, which, therefore, ceased in summer or after active exercise. The effect of pilocarpin, which produced in him general sweating, was prevented in the arm if a ligature were placed round it high up. Neither would the arm then react to the stimulus of cold. On removing the ligature the secretion of sweat was enormous, but this could be prevented by a dose of atropin. Nervous sweating depends on the action of secretory nerves, which occur mostly in the sensory roots of the spinal cord. A lesion of a mixed nerve can, therefore, cause, besides motor and sensory disturbances, abnormalities in the secretion of sweat. Such a lesion may be situated in a peripheral nerve, in the intervertebral ganglion, as in herpes zoster, in the spinal cord, or even in the brain, as in migraine. In this way the distribution of the hyperidrosis may be remarkable, as, for instance, in hemiplegia, when it may be strictly unilateral. The commonest form of local sweating is acrohyperidrosis seen on the

hands and feet of those whose arterial tone is deficient, and who suffer from cold hands and blue noses. In this boy, owing to the distribution of the sweating and the way it was influenced by pilocarpin. Kaposi diagnosed a central lesion. Scoliosis was present, and this, in conjunction with the slow extension of the affection, seemed to point to hydromyelia of the upper cervical and thoracic cord. —(*Brit. Med. Journ.*)

The Nervous Effects of Secondary Syphilis.—FOURNIER, in a clinical lecture (*Journ. de Méd.*, April 10, 1899), points out some of the results of secondary syphilis, which are very important owing to the fact that they are difficult to diagnose in the absence of distinct history, and from the fact that they are much more frequent in women than in men. The first of these is headache, which the author divides into three degrees. In the first it is troublesome, but does not interfere with the ordinary avocations. In the second this pain simulates almost absolutely migraine. In the third the pain is so severe as to render any exertion or employment impossible. It is accompanied by vertigo, ringing in the ears, and in many cases there may be a profound melancholia. The pain may be constant or intermittent. In the first it is more severe towards the evening; in the second form it comes on every evening between 5 and 7. This form of headache may last for periods varying from several days to several months. The importance of being aware of this possible result of secondary syphilis is of course the fact that anti-syphilitic treatment, more particularly mercurial, is followed by an astonishing relief of the symptoms. Another manifestation which the author describes is insomnia, which, like the last, is hardly ever met with except in women. In many instances this may be due to the pain already described, but in other cases there may be no headache or other symptom. The patient may pass several nights without sleeping. Lastly, a curious phenomenon met with in secondary syphilis is asthenia. Like the other two symptoms, it is almost confined to women. It may be so marked as to cause total inability to follow the ordinary avocations of life, and in extreme cases may give rise to utter prostration. There may be inability to stand or even to leave the bed. The heart beats are extremely feeble, and the pulse almost imperceptible; the digestive system becomes markedly torpid. There is a dulness of perception affecting all the senses, and trophic functions are greatly in abeyance. The writer says that this symptom, though more common than the other two, is apparently more frequently misunderstood. Thus malignant disease, tubercle, different forms of anemia, etc., have been diagnosed. Of all these tubercle seems to be the most frequent mistake on account of the sweating, wasting, and even slight pyrexia, but the absence of physical signs should prevent such an error in diagnosis. Anti-syphilitic treatment is rapidly followed by satisfactory results. Less important perhaps than the symptoms just described is the occurrence of vague neuralgic pains which may affect the sciatic or different branches of the fifth nerve. When this last is the case it is generally the supra-orbital branch. The writer, therefore, points out the importance of trying anti-syphilitic treatment, more particularly preparations of mercury in many cases of anomalous neuralgic pain. —(*Brit. Med. Journ.*)

Pemphigus Neonatorum.—LUTHLEN (*Wien. klin. Woch.*, January 26, 1899) states that pemphigus neonatorum, though having no connection with ordinary pemphigus, can be communicated to older children and adults, but in them is

limit to a few vesicles, and seldom becomes a universal bullous eruption as it does in newly born children. This difference between the disease in babies and in adults is due to the thick horny layer of skin in the latter offering greater resistance to the penetration of micro-organisms. The organism which produces the disease is culturally indistinguishable from the *staphylococcus pyogenes aureus*, but when inoculated on the skin always produces a vesicle, never pus. Owing to this, Almquist has proposed to call it the *micrococcus pemphigi neonatorum*. Lintlén is doubtful whether the micro-organism is really distinct from the *staphylococcus pyogenes aureus*, and thinks that it is at any rate connected in some way with septic processes, since an outbreak of pemphigus neonatorum in a lying-in hospital commonly starts in a child born while the mother is suffering from sepsis. The vesicles are formed by the elevation of the horny layer from the stratum Malpighii. This superficial character partly explains why pemphigus neonatorum is relatively benign and easily cured, as compared with the genuine pemphigus of adults where the Malpighian layer is also involved. In discussing the differential diagnosis the writer states that in children a few days old the superficial bullæ may be so extensive and may burst so rapidly that the disease may be mistaken for a severe scald. In the vesicles of burns and scalds, however, the Malpighian layer is always affected. Pemphigus contagiosus would be a more suitable name than pemphigus neonatorum. The treatment consists in avoiding baths, and in applying a soothing ointment to the parts where the vesicles have burst, and an antiseptic dusting powder to the rest of the body.—(*Brit. Med. Journ.*)

Therapeutic Notes.

Radiotherapy.—LEOPOLD FREUND, Vienna (*Wiener med. Presse*, No. 31, 1899), in an article to appear in the 3d Edition of Anton Burn's *Therapeut. Lexicon*, discusses the therapeutic use of heat-light, the Roentgen rays, and electrical currents. These physical forces are closely related, and there is much analogy in the successful results obtained by their use. D'Arsonval's treatment is by electric currents of very high tension, and alternating from 200,000 to 1,000,000 times a second. The current employed, though it will light an incandescent lamp, is quite harmless to the human body; applied to the skin of the mucous membrane it induces anesthesia of from 2 to 15 minutes; it is found to have a beneficial effect on certain skin diseases. It has a marked influence on metabolism and cell-life; under its influence the quantity of oxygen absorbed, that of the CO₂ expired, and the amount of heat given off by the body is increased, and there is considerable loss of body weight. On the vasomotor nerve it causes dilatation and subsequent energetic contraction of the blood-vessels, and diminution followed by increase in the blood pressure; the current has, moreover, an unmistakable and intensely deleterious effect upon micro-organisms and their toxins. Its direct use, by connecting the patient with the small solenoid, is indicated; for anesthesia in slight operations, for superficial neuralgia, for eczema, impetigo, psoriasis, lupus vulgaris, acne, superficial ulcers of all sorts, and in particular for itching pruriginous affections; for trophic skin affections of nervous origin, and for blennorrhœal catarrh of the neck of the womb; for

those diseases also which, according to Bouchard, arise from delayed metabolism (diabetes mellitus, gout, rheumatism, obesity, etc.), as well as for many functional neuroses. The current may be used indirectly either by auto-conduction, the patient being placed in a large solenoid but not in contact with the circulating electricity, or by condensation, the patient forming one armature of a condenser, upon a couch made of badly conducting material, the under side of which is covered with tin plate (the second armature), with daily sittings of 3 to 10 minutes, or less if they cause dyspnea or fatigue. This treatment is followed by a return of sleep, increase of strength and vital energy, improved appetite, regular menstruation, decrease of uric acid and increase of the urea discharged. The Roentgen-rays; a mask of pasteboard covered with thin (0.5 mm.) sheet lead, is fitted to the body, and has apertures corresponding to the parts of the skin to be treated. Powerful inductors, great intensity of the primary and high tension of the secondary current, proper for illuminating purposes, are unsuitable in the therapeutic use of the rays. The vacuum tube is placed at 15 cm. from the skin, so that the anticathode is opposite and parallel to the field of treatment. Daily sittings are given at first of five, afterwards of from ten to twenty, minutes; the distance of the tube may be gradually somewhat diminished. It is well to pause for two or three weeks after the first two sittings to avoid any excessive reaction due to idiosyncrasy. The effect of the rays on the skin is shown in relaxation of the deep vessels of the corium, with slight exudation in the epidermis and cutis, with consequent swelling of the hair papillae and loosening of the hair; the molecular constitution of the cellular elements of affected parts is altered and resorption promoted. It is not yet decided whether the deleterious effect of the rays on micro-organisms in parasitic skin affections is direct or due to increased phagocytosis. The treatment is indicated in abnormal hairiness, and in all such skin diseases as are dependent on or protracted by the presence of hair, sycosis, favus, wounds in hairy parts, trichorrhæxis nodosa, furunculosis, acne and lupus vulgaris or erythematodes, chronic eczema, elephantiasis. The exposure of any part to the rays must be at once interrupted as soon as the skin becomes tumescent or bluish red or brown; for example, in sycosis and favus, after 7 to 13 sittings; conjunctivitis may be prevented by the use of the mask and by closing the eyes, or relieved by the usual astringents. Itching and erythema by borax and lanolin (15 per cent.). In lupus the treatment may be more severe, and slight dermatitis does not matter; cicatrization is progressive, and closely resembles normal skin. To cure hypertrichosis permanently the treatment (three to five short successive sittings) must be repeated at intervals of four to eight weeks.—(*Brit. Med. Journ.*)

The Absorption of Ichthyol through the Skin.—CORNELIUS BECK and VON FENYVESSY (*Arch. Internat. de Pharm. et de Thérap.*, Vol. VI, Fasc. 1 and 2, 1899, pp. 100-120) conclude, from experiments on dogs, that in them ichthyol is absorbed by the normal skin, shown by the increase in the sulphur present in the urine. Both the oxidized and non-oxidized sulphur take part in this increase in equal proportions. It could not be decided whether metabolism was influenced by ichthyol applied to the skin in the same way as Zuelzer and Helmers found in the case of man when ichthyol was given per os. The skin appears to be permeable to bodies which are equally soluble in water and in fat; such substances do not only affect the deeper layers of the skin, but may also lead to changes at a distance. The authors admit that (owing to the differences in the skin of dogs and man, their results can only be applied to man with reserva-

tion, but they consider their general conclusions apply to man as well. They could not ascertain whether the closely aggregated, well-developed hair-follicles on dogs favored or hindered the absorption of the drug (the paper is in German). That ichthyol given internally leads conversely to elimination of sulphur by the skin has been clinically observed by H. Radcliffe Crocker.—(*Brit. Med. Journ.*)

Sterilization of the Gum Elastic Catheter.—DR. LEVEN (Abstract in *Lyon Med.*, p. 400, 1899) proposes liquid paraffin as the best means of preserving gum-elastic instruments after they have been sterilized in any manner desired. The instrument will keep indefinitely in this agent and when used the paraffin acts as a lubricant. After catheterization a healthy urethra, cleansing the catheter with absolute alcohol is sufficient before returning it to the paraffin. Where the instrument has come in contact with infected urine, it is better after cleansing to leave it 24 hours in a 4-per-cent. solution of formal, then rinse in boric-acid solution before returning to the paraffin.

Treatment of Scleroderma with Thiosinamin.—HEBRA (*Arch. f. Derm. u. Syph.*, Bd. XLVIII., H. 1) showed to the Vienna Society three cases so treated. The first had had 24 injections and the skin was nearly normal. In the second there was slight improvement and in the third it was manifest after 4 injections. Half a Pravaz syringe of a 15-per-cent. solution is deeply injected between the shoulders every second day.—(*Amer. Journ. Med. Sciences*)

Soluble Metallic Mercury (Hyrgolum) as a Curative Agent.—DR. O. WERLEER (*Dermatol. Zeitschr.*, vol VI., 1896) gives in a series of cases his experience with this new agent, the so-called colloidal form of the metal which is soluble in water. For injection he made use of the following formula:

R Hyrgol (Hydrarg. Colloidalis)	10.0
Aq. Destill.	10.0
Adipis. Sull.	80.0
Cera. Alba	20.0
Etheris Sulph.	1.5
Etheris Benzoiat	3.5
M. ft. ungt.	

The mercury is dissolved in an abundance of cold water and this solution is added in small quantities to the wax and lard till an even grayish-black color is obtained. The ethers are then added. Should be kept from the light. May be dispensed in capsules of 30 grains each.

He finds it cleaner, more readily absorbable, of better action, easier of use, less irritating than the blue ointment.

The Iodine Treatment of Syphilis.—BLUM (Congress für Innere Med., 1897) has lately shown that iodin forms by its action on albumen a stable substitution compound, and that this action of iodin can always be shown to take place in the thyroid gland, after the administration of iodid of potassium; under this treatment an accumulation of an albuminous substance (iodo-album) takes place in the thyroid gland. G. Zuelzer (*Archiv f. Dermatol. und Syphilis*, vols. XLIII. and XLIV.) of Zurich, in repeating these experiments on dogs, found that after administration of potassium iodid, organic iodid compounds could be demonstrated here and there in the body, although in very small quantities in propor-

tion to the iodine accumulated in the thyroid gland. Potassium iodid may easily yield its iodine when acted on by oxidizing agents; on the other hand in the case of iodobacil (a stable combination of iodine with a proteid nucleus, and containing 10 per cent. of iodine) much stronger oxidizing agents are necessary to liberate free iodine. The animal body possesses a sufficiently strong oxidizing power in the living cell, however, for this purpose. This is shown by the quantitative excretion of iodine in the form of potassium iodine after administration of iodobacil, which can only be effected by oxidation and not by reduction. The relation between potassium iodid and iodobacil is similar to that between pure glucose and starch; the latter never produces alimentary glycosuria, as it is only absorbed in proportion to its conversion into dextrose, no matter how great the dose. In the same way iodobacil never produces so acute an excess of iodine, liberated in the tissues of the body, as potassium iodid. Iodobacil is also practically not eliminated by the kidney, and hence during its sojourn in the body not only is its action (in liberating iodine in the tissues) slower and steadier, but its excretion from the system is slower. Hence its action is also more protracted. In numerous cases of syphilis and psoriasis in which potassium iodid produced slight or grave symptoms of iodine poisoning, the administration of iodobacil was found to be quite free from such effects. The largest part of doses of potassium iodid administered in tertiary syphilis passed through the body too readily to affect the morbid tissues, for example, gummata. In all these respects iodobacil is superior in its persistence. According to this view potassium iodid is indicated in cases in which the first rapid action of iodine is desired, for example, in florid tertiary eruptions; but in all cases in which a protracted iodine treatment is desired and where at the same time it was necessary that the total amount of iodine administered should be absorbed and iodism, that is, free and extensive liberation of iodine in the tissues, avoided, iodobacil should be prescribed. Fifty cases of syphilis were treated on these principles with iodobacil, half of these being at the Dermatological Hospital and Poliklinik at Breslau, and the other half from the private practice of Professor Neisser; in every case good results were noted. Where there was any disposition to iodism, iodobacil alone could be used. When the dangerous and destructive symptoms of the tertiary stage had disappeared, it was essential that the treatment should be kept up, and for this purpose iodobacil met all requirements. Three to five grains of the substance in capsules should be taken daily for the purpose.—(*Brit. Med. Journ.*)

Treatment of Eczema.—JONATHAN HUTCHINSON, F.R.S. (*Archives of Surgery*, vol. I., p. 164). "If I were required to name one remedy only for eczema I would choose tar; if two, tar and lead; if three, tar, lead, and mercury. Yet for a disease which presents so many phases and varieties, it may seem almost absurd to speak of single remedies. Making, however, allowance for such considerations, I yet hold to a strong belief that tar is the specific for all forms. The chief reason is not accepted as such is that it is commonly employed far too strong. If weak enough, and used freely enough, tar solutions will almost invariably cure eczema. Common tar-water and solutions of carbolic acid are very useful, and come, perhaps, to nearly the same thing; but the solution of coal tar sold under the name of *Liquor Carbonis Detergens*, is the most convenient and most certain remedy. If I have been induced by lack of patience to prescribe any other remedy, I find almost invariably that I return to this. I use it, however, in extreme dilution. A teaspoonful to a pint of water is a common strength,

but often it is prescribed much weaker. It should be so weak that it does not smart, and it should then be employed like water. The parts should be bathed with it, and rags soaked in it should be laid over them, and frequently rewetted from outside. Oil silk should not be used, at any rate not in large pieces. It soddens the part and spreads the eczema. A few small bits may be put here and there to prevent too rapid drying, but it is far better to do without it, and to rely upon very frequent rewetting."

In nine cases out of ten, eczema can be cured by local treatment without alteration in diet or internal drugs. But Mr. Hutchinson always advises the avoidance of sugar, fruit, and milk, and very often gives salines, and in acute cases, even tartarized antimony. The prohibition of milk has caused surprise, as it is regarded as the mildest and least irritating of foods. The testimony of not a few patients, however, has convinced him that it often makes the skin itch, and aggravates eczema. The influence of fruit, especially strawberries and raspberries, and all kinds eaten with cane sugar, is very great in causing irritability of the skin. It is doubtful whether they ever cause eczema, but they cause scratching, and this brings out eczema. The main agents in the production and perpetuation of eczema are scratching and rubbing. The patient who has strength of will to abstain usually recovers, no treatment will cure those who cannot. It is often of little use to insist on its avoidance unless a substitute is provided, it is here that tar solution is useful. It abates irritability. A good bathing gives relief as efficiently as a good scratching, and is not followed by reaction. One reason that eczema is so difficult to cure in infants is that they cannot be restrained from tearing the skin, and often undo in a few minutes the effects of a week's treatment.

Weak tar lotions may be used without much regard to stage. In a few cases, however, of very acute inflammation, it is preferable to use lead lotion for a few days, and to add tar only when the congestion is a little abated. The cases, however, are very few in which Mr. Hutchinson omits tar, even at the beginning. Very often he prescribes liquor carbonis and liquor plumbi diacetatis in equal proportions diluted as above directed.

Arsenic rarely does any good, and often irritates. Weak sulphur baths, as at Harrowgate and Aix-la-Chapelle, often cure chronic cases, chiefly those of dry eczema, but he has seen severe cases from both places not only uncured, but apparently made worse — (*The Medical Review*.)

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Original Communications.

SOME CASES OF BILATERAL LINEAR NEVUS, SOMETIMES CALLED "NEVUS, UNIUS LATERIS."

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DR. MORROW has given the name of linear nevus¹ to the condition called by various terms, but most commonly referred to as nevus unius lateris, nevus verrucosus and nevus neuroticus.

In summarizing the characteristics generally observed, the author emphasizes the following points:

1. Its linear disposition, referring to the streaks of lesions in their arrangement following in certain cases, the distribution of definite nerve tracts or following the natural lines of cleavage of the skin.
2. Its unilateral distribution. Here he especially remarks that "*the absolute limitation of the eruption to one-half of the body is so invariable that the qualifying term unius lateris or unilateral has been applied as indicating a distinctive characteristic.*"
3. Its papillary or verrucose character. The eruption is here described by him in detail as made up of papillary elevations, or warty growths, flattened lichenoid papules, more or less scaly.

¹ *New York Medical Journal*, January 1, 1898.

4. The congenital origin or development in early life.
5. Sensory disturbances.
6. Tendency to advance, or to retrogression.

His analysis of the disease as hitherto described is brief but comprehensive.

The affection is so classic in its appearance that the diagnosis is not usually difficult. At one time rare, so many cases have in recent years been reported that its occurrence is no longer remarkable.

The cases which follow are exceptional because of several points



CASE I.

at variance with the above excellent exposition of the characteristics of the cases usually seen.

1. The fact that in none of them was the eruption present at birth.
2. The cases have a *bilaterally symmetric* distribution.
3. That each of the three cases presents a different type of nevus, the first purely verrucose, the second vascular and erectile, the third purely pigmentary.

It is not my purpose to expand into any views as to the etiology

or pathology of these cases, but simply to report them as valuable in determining a proper nomenclature, and as interesting from the clinical aspects of their distribution and variety of lesions.

CASE I.—Boy, aged 8, native of New Orleans, of French descent, came under observation December 27, 1897, presenting the following condition: Healthy, well-built, never seriously ill. Eruption first noticed a few days after birth, but insignificant and attracted no attention, within the past three years the eruption had become more prominent and has extended to the present proportions, the disfigure-



CASE I.

ment, presenting and threatening, occasioning demand and desire for treatment.

The eruption was located on the face, shoulders, chest and back; distributed symmetrically, patch for patch in each lateral area, beginning at the outer half of each orbit and extending over ears, along neck, over shoulders, in axillæ, then spreading anteriorly and posteriorly, showing over the chest on the outer side, and over the scapular region, there joining with a band from the neck, and, paralleling a like eruption from the other side, extending along the spinal column,

as far down as the sacrum, where the eruption ended in a spray of lesions.

The arrangement of the lesions was quite uniformly in groups and clusters, in sprays and festoons, in masses of various-sized lesions, always single, never confluent.

The lesions were throughout papillary and verrucose; some small, some flat, some pedunculated.

The lesions on the neck were the largest, there attaining the size of a pea, and being deeply pigmented, most of them dark-brown, some almost black.

The lesions, over the shoulders, chest and back were more numerous—more widely spread, but smaller and less pigmented. As the lesions approached their lower points of location, in the lumbar and sacral regions, the pigment grew less marked and their size likewise diminished until most of them were only a spray of pinhead-sized lesions, only slightly elevated.

The lesions on the face, at outer angles of the eyelids, were almost free of pigment, but distinctly verrucose, though quite small.

There had been at no time any general or systemic disturbance, and the lesions had ever been free of all subjective symptoms.

The boy was well nourished, but of distinctly nervous temperament. The treatment was purely surgical, consisting in chloroform anesthesia and the destruction of all the lesions with a Paquelin thermocautery point.

CASE II.—Young girl, aged 17. First seen October, 1898. Always healthy. No serious illness. No recollection of injury or of fall as a child. Began school at 7 years of age. Though "nervous," never stopped school on that account. Sleeps well. Menstruates regularly.

Eruption first appeared about four or five months before she began to menstruate. She noticed and remarked the fact that the lesions appear to be more prominent under excitement and during hot weather. Also notices that the lesions seemed "full of blood" at time of menstruation.

Bilateral on face, limited to chin, nose, *alae nasi* and slightly on the cheeks, just outside the *alae nasi*.

At the junction of the nose and face the eruption is most marked, as it is also on the chin.

The lesions are grouped in clusters, but with each one distinct. These are small tumors, verrucose for the most part, others forming little pedunculated masses, the latter lesions being pinhead sized, the former being more or less flat and sessile, some flat and elevated, all varying in size from pinhead size to a lentil.

The color of the lesions, at the junction of the nose and face, was a dull *bluish* gray. The rest of the lesions were reddish and highly vascular, some being the normal color of the skin; this being especially noted in the lesions on the nose.

As an exception to these, there was a distinct lesion of angio-fibromatous type on the left upper eyelid, at its outer angle, about the size of a small marble.

All the lesions shared in the erectile characteristic.

The patient first noticed eruption two years before, when the several patches appeared at once, since which time, they have grown worse. They have at no time retrogressed.

The patient did not return for treatment.

CASE III.—A male infant of 21 months, of excellent physical type. At no time ill since birth.

About six weeks after birth mother noticed discolored eruption beginning over abdomen of the infant. This increased to such an extent as to alarm the parents, who applied for treatment at the Charity Hospital Clinic, in October, 1898.

The child presented the following evidence. Extending from the clavicle on either side in front the eruption spread downwards and outwards in a curve which finally formed almost a semi-circle, extending from the last dorsal vertebra to the upper border of the first rib at its juncture with the sternum. The whole area inside the semi-circle was pigmented with blotches of eruption which met a second parallel curve extending in the same way from two inches outside the navel to the upper border of the coccyx, likewise embracing in its area on either side a mass of blotches of pigmentation.

The eruption was purely pigmentary, the borders of the curve being a deep brown and fully an inch in width, standing in strong contrast to the lighter brown of the eruption covering the encircled area. While the borders were a solid uninterrupted line of pigment, the eruption within these was made up of patches of varying shades of pigment deposit, running from a pale buff to a light chocolate brown.

The child had suffered no inconvenience from the eruption which yielded gradually to the internal administration of Donovan's solution.

REMARKS ON THE TREATMENT OF SCABIES.

BY SAMUEL SHERWELL, M.D.,

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IT is with a certain degree of impatience (hardly a strong enough word) that I turn to every new work on dermatologic compilation, and find under the heading "Treatment of Scabies," about the same row of more or less dirty and evil-smelling ointments, or else directions how to macerate and scrape the skin, and thereafter modifications of the same sort of salves to be applied.

On two former occasions, I have freed my mind on this matter, once about ten years since before this Association; this will probably be my last deliverance on this subject and I propose to make it earnest.

When I consider the aggregate amount of misery and annoyance caused by this very commonplace skin affection; and that caused by the various treatments thereof, with their dermatitic and eczematous complications; and also the recurrences due to imperfect prophylaxis of the surrounds and surroundings; I wonder if the world, and dermatologists generally, will take any notice of this my method in the future, and if not, I am driven to add so much the worse for it, and them.

I am not in this short protest to proclaim any new remedy, but simply as I have done before, in the public manner mentioned, as always in my lectures, and repeatedly before the N. Y. Dermatological Society to urge the better application of the old one "sulphur," the "washed flowers of sulphur," believing and insisting as I do, that it is by far the cleanest, least disagreeable, and altogether the most efficient method at our command, used in the way I shall presently describe.

No one member of the Association but knows how this skin disease is ordinarily treated at the various clinics large and small of this, and particularly of other countries.

Either the patient is ordinarily smeared with a repellant ointment to be kept constantly applied or else he is macerated, bathed, and scraped and usually afterward anointed so that while he may be free or nearly so from the parasite, he has had something like four or five coats of epithelium taken away from him, and that and the finishing unguent put him in the best frame possible for getting a dermatitis, or prolonged eczematous efflorescence, harder to treat than the original malady; and by the pruritus occasioned causing much the same symptoms objective

and especially subjective. Again the general loose directions for treating the family or intimate companions are dwelt lightly upon, and I think are as lightly observed, so our patient in this way goes abroad, to the scene of his first contagion, to be re-infected "*da capo*."

Now for my own method: we will presume as this disease is almost of necessity found in groups, and the family is the typical one. We will suppose the ordinary family of five—father, mother, and three children. The eldest a boy of ten or twelve, who has acquired the disease from some playfellow, and who sleeps with another child, the remaining one being a mere infant. It is almost an inevitable consequence in a poor family that all of these individuals should have the trouble in some grade.

We will then direct them all to take a bath the same evening, for the adults and the elder children, a little sand soap (*sapolio*) may be lightly used over the tougher portions, the ones usually most affected of body, of course not on the infant. The body and limbs may then be rubbed lightly with a little sulphur lotum, a half teaspoonful is an excess for each individual, no excess of friction is required at all. The bed linen and underclothing of all kinds should be changed, and between the sheets, or the coverings that come next the person in bed, a small train or a few spots of sulphur should be placed in each bed, say a half teaspoonful, one of the sheets lifted, a slight blow given, which causes enough disturbance of the air, so that the powder is disseminated over the whole internal surface. By repeating the powdering of the bed, say perhaps every other or every third night, by bathing and changing clothes in about the same way and at about same interval for a week, the cure is effected in ordinary cases. Naturally an exaggerated case will take longer, as we know that the ova in the cuniculi take a longer time than that for development. The male *acarus* as we know, is not a burrower; by the time the female has pro-ruptured into the external world from below the epiderm, he is either dead, or certainly functionless, for certainly few cases or case groups last over the ninth day under this treatment.

While I admit that some of the more heroic treatments for the itch are capable of destroying the parasite in much shorter time they will always be from the nature of things attended with the inflammatory and dermatitic manifestations to be expected. One ounce of the sulphur lotum is a great excess of what is needed in the ordinary treatment of such a family as is taken as a type above. I have never seen a resultant dermatitis nor failure of cure. Contrast this with the diabolism of feeling and of smell as in many other advised ways, and I think the percentage of benefit to the race is not small. I cannot think of any-

thing to be urged per contra except the conservatism of authorship, and I furthermore think that there should hardly be such a disease as scabies existent, except among the indescribably dirty people, as the Northern Russians, etc.

My method is innocuous and in offensive enough to be used prophylactically in emigrant ships, and quarters in military or logging camps, etc., and then what may be also taken into further consideration is this, that sulphur in and of itself has a direct and potent inhibitory action on other parasitic diseases both animal and vegetable.

The slight odor if my plan is followed any mild perfume will cover.

In conclusion I will say that for over twenty-five of the now nearly thirty years of active dermatologic practice, I have used this mode of treatment in this disease; many of my colleagues of my city, and I believe many, probably most of my students in Brooklyn do the same.

Scabies is now a very rare disease in Brooklyn, I think it would be rarer elsewhere if this exceedingly simple method were followed.

Correspondence.

NEW LUBRICANT—A CORRECTION.

EDITOR OF THE JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES:

A mistake was made in the formula contained in my previous letter in September issue (1899) regarding a lubricant for instruments. I give it corrected below.

R Gum tragacanth gr. xlviij

Ac. carbolic (95 per cent. sol.) ℥ 1

Glycerin ʒij

Aque ad. ʒiv.

Mix the last three constituents, pour the resulting liquid upon the gum tragacanth in a mortar, and let it stand over night. Then triturate with pestle till a homogeneous mass is formed. It can then be used from an ordinary ointment jar, or put into paint tubes if thought more desirable.

E. WOOD RUGGLES.

Society Transactions.

AMERICAN DERMATOLOGICAL ASSOCIATION.

TWENTY-THIRD ANNUAL MEETING, HELD AT THE COLLEGE OF PHYSICIANS, PHILADELPHIA, MAY 30 AND 31 AND JUNE 1, 1899.

JOHN A. FORDYCE, M.D., *President, in the Chair.*

FIRST DAY, TUESDAY, MAY 30TH.

Address by the President, DR. JOHN A. FORDYCE, of New York.

Epithelioma as a Sequel of Psoriasis, and the Probability of Its Arsenical Origin.—By DR. M. B. HARTZELL of Philadelphia. In his paper, the author reported the case of an unmarried woman, thirty-five years of age, who had suffered from psoriasis of the ordinary type for many years, for which arsenic was taken in considerable doses for long periods. After a time, keratosis of a peculiar type developed upon the palms and soles, characterized by the formation of clavus-like elevations, and finally epithelioma at the site of several of these corneous lesions, followed by a metastatic growth in the groin, which caused the death of the patient. Sections made after death of the secondary tumor in the groin showed it to be composed of epithelial cells contained in thin-walled alveoli.

In addition to this case of his own, Dr. Hartzell referred to a case of epithelioma, associated with psoriasis, which was reported by Pozzi, in 1874 (*Bulletin de la Société Anatomique de Paris*), which was the first of its kind on record. In 1877 Cartaz reported a second case (*Ibid.*, 1877). In 1885 Dr. J. C. White of Boston reported two cases of long standing psoriasis followed by wart-like growths which terminated in carcinoma. Other cases have been reported since by Jonathan Hutchinson, Hans Hebra, and Power. Ten cases in all are on record. In all of them the psoriasis, which at first presented the ordinary type of the eruption, was of long standing, usually many years. In all but three, some form of keratosis was a marked feature, appearing, after a variable period, most frequently upon the palms and soles in the shape of corn-like excrescences; and finally, cancerous ulceration, beginning beneath one or more of these horny excrescences. In all of the cases in which any mention is made of the treatment of the psoriasis (eight out of the eleven) arsenic was given in considerable quantity for a long period.

Dr. Hartzell said that conclusions drawn from so small a number of cases could not be considered as final, but the evidence thus far in our possession was of such a character as to permit us to accept as very probable, at least, the arsenical origin of the epithelioma in these cases.

DR. FRANCIS J. SHEPHERD of Montreal: With regard to the occurrence of

¹Published in full, Aug., 1899.

cancer following the use of arsenic, I have never seen it. It seems to me that the examples given are simply examples of irritation producing cancer. We see this frequently in smoker's lip. I recently saw such a case where a man, who had no teeth, held his pipe between his lips, the end of the stem resting on the hard palate, and at that point a cancer developed. We see the same thing among the inhabitants of countries where for the sake of warmth the custom of holding a brazier against the abdomen prevails, at the point of contact epithelioma frequently develops.

DR. JOHN T. BOWEN of Boston: We can hardly trace a close relationship between psoriasis and epithelioma or arsenic and epithelioma. It is perfectly clear to me that the administration of arsenic for a long time does produce keratosis: this I have seen a number of times. I remember one marked case, where the man had been taking arsenic for an eczema, not by the advice of his medical attendant, but because he thought it relieved the itching. His hands and feet were covered with masses of keratosis—small warts.

A localized keratosis from any cause may turn into epithelioma, and in that way we may see an epithelioma develop in cases where a keratosis has been produced by arsenic. It seems to me that we should not speak of a close connection between psoriasis and epithelioma, or arsenic and epithelioma, but should merely regard arsenic as one of the causes of keratosis, and keratosis as a condition which not infrequently terminates in epithelioma.

DR. S. SHERWELL of Brooklyn: I cannot believe that Dr. Hartzell has entirely proved his case. I agree with Dr. Shepherd that continuous irritation of any kind may produce epithelioma, and as the prolonged administration of arsenic may produce a keratosis, an exaggeration of its action on the tissues may give rise to cancer, but this is to my mind doubtful, certainly very rare. I have had many cases of verruca lata et seborrhoica improve under the action of arsenic, in fact, it is my earnest conviction, in cases of epithelioma, that its administration is prophylactic and inhibitory in character. I always give it after operation, and to me it in almost all cases appears to work beneficially in the ways mentioned. I go so far as to say that did I not do so I should consider myself careless, culpable, nay criminal, so strong is my conviction in this matter. This may be considered as strong language, but later it may not seem so.

I know not the reason of its influence, its beneficial influence on the embryonic cells both of fibrous and epitheliomatous tumors in these and other malignant forms of disease, but it is certainly very great, or else my whole experience goes for nothing. I have too many cases in my mind now that go to confirm this, to use up the time of this Association in recapitulating.

I have found formalin solutions very beneficial in retarding progress, and as it were mummifying the tissues in epitheliomas, where operation was refused, or thought inexpedient.

DR. A. R. ROBINSON of New York: As far as the etiology of cancer is concerned, the question cannot be properly discussed now as it would require too much time, and, what is more important, we have no definite knowledge on the subject of the direct cause of cancer: although we have had a great deal of writing and much assertion, especially from the believers in a parasitic origin. We do know considerable about predisposing factors such as heredity, age, previous injury to the parts, *et cetera*: and we know enough about the manner of formation and the vital character of the epithelial cells in the secondary tumors to make pathologists chary about accepting as conclusive the evidence so far offered by writers as showing a parasitic origin. Personally, I do not believe

the epithelial growth depends on organisms, but upon an uncontrolled epithelial activity, an exhibition of a vital power residing in epithelial cells, and capable of activity when freed from restraint either by the nerves or surrounding connective tissue; hence anything that diminishes the resisting power of the surrounding tissue or allows the epithelial cells to become rebellious, unrestrained, and to invade foreign territory is the predisposing factor in a given case.

As regards Dr. Hartzell's paper, and the examples he has given of epithelioma following the use of arsenic, I should therefore look upon the arsenic simply as a factor which probably has induced certain changes in the nutrition of the part, rather than in the sense of a direct exciting agent, and allowed the epithelium to leave its normal location, and for each individual epithelial cell to act as an independent body.

DR. HENRY W. STELWAGON of Philadelphia: The case which Dr. Hartzell reported in his paper was under my observation for some years, but not continuously. Several times I lost sight of her for a few months, and during these interims she took immense quantities of arsenic, with resulting attacks of keratosis of the palms and soles, which usually subsided when the drug was withdrawn. Eventually, however, the warty growths persisted in spite of the withdrawal of the arsenic and several became superficially ulcerated. The sluggish character of the several ulcers was a peculiar feature of the case, remaining superficial and insignificant; one the sole of the foot, however was slowly progressive, and gave rise to considerable pain. It occurred to me that the primary condition was a keratosis, followed by a neuritic ulcer, with superficial destruction of tissue. Later, the ulcer began to undergo the characteristic epitheliomatous degeneration. We had first to deal with a keratosis, then a neuritic ulcer, and, finally, epithelial degeneration, the arsenic, in my opinion, being the primary causative factor.

DR. WILLIAM T. CORLETT of Cleveland: Speaking from a clinical standpoint, I am not inclined to believe that the administration of arsenic gives rise to epithelioma. I am aware that Mr. Hutchinson has claimed that the long-continued use of the drug tends to produce these growths. Subsequent observation at the Blackfriars Skin Hospital I believe did not tend to show that such a result followed in an appreciable number of cases.

In several instances coming under my observation epithelioma has followed lupus, and I agree with Dr. Shepherd that the epithelioma in these instances is probably due to the irritation occasioned by the various diseases for which arsenic is given rather than to the direct effect of the drug itself.

DR. T. C. GILCHRIST of Baltimore: I agree with Dr. Sherwell that the reader of the paper has not sufficiently supported his argument that arsenic was the cause of the epithelioma. Arsenic produces a keratosis, and the irritation this gives rise to can be regarded as a predisposing factor in the production of epithelioma.

In common with most of the men at the Johns Hopkins Hospital I am opposed to the parasitic theory of cancer.

DR. JAMES C. WHITE of Boston: I can add to the few cases that I have already reported of this peculiar combination one other, which occurred about a year after the two I have previously put on record. The patient was a man of science, well known, who for a long time had had a severe psoriasis, for the relief of which he had taken some arsenic. Subsequently, a keratosis developed on the palms and soles, terminating in an epitheliomatous ulcer, which necessitated an amputation of one toe. Probably twelve or thirteen years have elapsed

since that amputation, and although the patient still suffers from psoriasis occasionally, he has taken no arsenic since and there has been no return of the epithelioma.

I think there are certain other elements in this question which need investigation before a direct sequence can be proven between the administration of arsenic, keratosis, and epithelioma. I think in the first place we want to know how many cases of psoriasis not treated with arsenic are followed by keratosis. Next, we want to learn to what extent a preëxisting tendency of epithelial structures to assume various diseased conditions may be an element in the production of keratosis of arsenical origin, and, again, what influence such a tendency exerts on an epithelioma which is regarded as being dependent on arsenic.

The fact should be borne in mind that arsenic is given for long periods of time in certain affections of the nervous system and in other conditions, and so far as I know, the sequence of changes referred to by Dr. Hartzell has never been noticed in such instances. It is interesting to learn, however, according to the report of the case made by the reader, that we may have, apparently, a direct relation between psoriasis and epithelioma in the same person, where no previous keratosis existed. All the points I have referred to must be investigated closely before any direct relation can be proven.

DR. JAMES N. HYDE of Chicago: I have listened with much interest to the paper and discussion, and from the latter it is plain that there is no great difference of opinion among those who have taken part in it. I doubt very much whether the reader of the paper would be willing to state dogmatically that arsenic can produce epithelioma. In connection with this subject, I am inclined to agree with the views expressed so well by Dr. Robinson. The eruptions produced by arsenic in other regions than the hands are not in general followed by the sequence of events stated by the reader of the paper. The palms, where keratosis is especially common, are much exposed in the daily pursuits of life, and this may account for the changes which occur there and result in epithelioma.

During the past year I have been studying a most interesting group of cases of keratosis of the palms, about eight in all; and in the museum collection which we will view on Thursday you will find a rather poor photograph of two hands, which represent the keratotic condition produced by arsenic. In this group of cases the drug was taken in large doses for long periods. Some eight months ago, one of these patients presented himself with a keratosis of the palms and soles, unquestionably due to large doses of arsenic taken for a psoriatic condition of the skin of long standing. The patient had had the third finger of the left hand amputated by a well-known surgeon in Chicago for a condition which had been recognized as an epithelioma. There was a moderate grade of keratosis of the palms: the lesions were small and there was no ulceration. At the third or fourth examination of this patient a lymph-cord was found running up from the hand; I could not detect its course in the hand, but from the wrist it could be traced to the epitrochlear gland, and thence to a mass of glands in the left axilla. There was no ulceration, but slight redness, in the neighborhood of the scar where the amputation had been originally done. As a result of a consultation, the surgeon told the patient that another operation would be necessary, and that if he would go to the hospital, the axilla would be "cleaned out." The patient went home and that night ended his life with morphin.

I agree with those who have said that arsenic produces a keratosis. The hand in this state is constantly exposed to irritation, being thus subjected to the changes which may eventuate in epithelioma. The fact that these changes do

occur should make us more careful about the use of arsenic, the administration of which is too commonly advocated without just cause.

DR. CHARLES W. ALLEN of New York: I have been much interested in this extremely well-prepared paper, and the report of cases it contains. I think we should all bear such instances in mind. We all see many cases of psoriasis; we likewise see a good many cases of epithelioma, but very few of us see epithelioma in combination with psoriasis, whether arsenic has been taken or not. We all give a good deal of arsenic, and few of us see epithelioma result from its use. That arsenic may have a decided effect on the skin we all know. I have, within the past fortnight seen a marked example of the effect of arsenic, although not given in excessive doses nor long continued, in a case of lichen planus. The patient, a man, while taking eleven minims of Fowler's solution three times daily, developed bullæ upon the feet, followed by an eruption of herpes zoster surrounding the trunk. There were also aberrant or scattered vesicles on a slightly erythematous base, like the eruption of varicella, but without the umbilication.

I have repeatedly seen keratosis of the palms and soles produced by arsenic, and I agree with those who take the view that arsenic can and does produce such results, and that an epithelioma may follow as the result of that eruption.

I would like to speak of one of the earliest cases I saw in my dermatological career, and also of one of the latest. The first was a young woman who had been taking arsenic for a long time for an affection which was probably a species of chronic eczema. She subsequently developed on the heel a deep ulcer with peculiar villous or fungating base which persisted for a year or more, refusing to cicatrize under stimulating or other forms of treatment. What became of it—whether it developed into epithelioma or not, I do not know, because one day she asked me why she was becoming so stout, and after a vaginal examination I informed her that the reason for it was that she was pregnant. She was unmarried. I was not retained as the lady's accoucheur nor detained further as her skin adviser, so I lost the case entirely. Possibly this may have been the same patient whose history Dr. Hartzell has reported.

Now, as to my latest case. Just before leaving home I saw a man with a keratosis of the soles of the feet. He stated that he had never taken arsenic nor indeed any medicine. The lesions were very painful and some of them were very pronounced. The soles were studded with deep-seated vesicles, some rather large, and upon piercing them a little fluid would exude. Over these lesions thick, corn-like epidermis would form. I treated him with salicylic-acid plaster with favorable results.

DR. L. DUNCAN BULKLEY of New York: This subject has been so well covered that I have but very little to add. I agree with almost all of the speakers. We should all bear in mind the enormous number of persons who take arsenic, and the relatively small number in which these phenomena occur. I have seen keratosis develop following the use of arsenic, as we all have. We should also remember the many thousands of cases of psoriasis, and the very few cases of that disease in combination with epithelioma. I have seen two or three such cases, which are hardly enough to excite attention among about fifteen hundred cases of psoriasis.

DR. P. A. MORROW of New York: I think it is generally accepted that arsenic has a marked influence upon the nutrition of the skin; we have abundant clinical evidences of its irritant action in the production of various forms of arsenical dermatitis, brownish pigmentations, and keratosis of the palms and soles. I am

rather inclined to accept what seems to be the purport of Dr. Hartzell's paper regarding the possible ulterior effect of arsenic on the skin, although I cannot corroborate this by my own experience, because, in spite of what Dr. Sherwell said, I do not make extensive use of the drug. We are all willing to admit that arsenic may produce a keratosis, and that keratosis is followed by epithelioma in certain cases. I think it is very difficult to discriminate between the primary effect of arsenic in producing the keratosis, and its influence in the further evolution of the trouble into epithelioma. We cannot say that the effect of the arsenic stops at a certain point and goes no further. The evidence that most of the gentlemen have presented has been of a negative character. The fact that the arsenic does not cause epithelioma directly and that cases of this character are few in number does not prove that the primary impetus to the production of epithelioma is never due to arsenic. The more we study the action of drugs on the skin, the more must we recognize that their effect depends upon the peculiar tissue organization of the patient; or what is denominated idiosyncrasy. There are very few drugs that habitually and constantly produce an irritant effect upon the skin. Quinin and arsenic, and a large number of other drugs affect the skin in a very limited number of cases. Their irritant action depends more upon the inherent peculiarities of the individual than upon the properties of the drug. Dr. Sherwell referred to warty growths in elderly persons, which sometimes develop into epithelioma. While these warty growths are very common, only a limited number result in epithelioma. We cannot understand why such growths, in certain individuals, should take on epitheliomatous degeneration. I do not believe it is always due simply to local irritation.

I have seen quite a number of cases of keratosis of the palms and soles, not only in my own practice, but also cases presented before the New York Dermatological Society, but I have never observed any such transformation as has been alluded to by the reader of the paper; at the same time I have as much faith in the pernicious effects of arsenic as Dr. Sherwell has in its curative value.

DR. D. W. MONTGOMERY of San Francisco: I have never seen a case of keratosis from the administration of arsenic, but I believe it may occur from the number of cases reported by the reader of the paper. I believe that epithelioma is due to a slow irritation of the skin, and that very probably, as some of the members have said, the epithelioma in these cases of keratosis is due to such irritation.

DR. H. G. KLOFZ of New York: As the discussion has become so general, I wish to state that I take the same position as Dr. Fox. I do not see any of the bad consequences of arsenic because I do not use the drug to any great extent, for the reason that I am not so very enthusiastic about its efficacy in psoriasis, lichen planus, or pemphigus.

It seems, however, that we should certainly be more cautious than we have hitherto been in prescribing this drug, if it is likely to produce a condition which favors epithelioma.

DR. FORNYCE: I agree with the reader of the paper that arsenic has some action in bringing about this epithelial proliferation in cases like those reported. We know that a keratosis of the palms or soles sometimes degenerates into epithelioma, and I believe that arsenic has a distinct influence in bringing about this sequence of events.

DR. HYDE: I wish to call special attention to a fact which has been brought out by one or two of the speakers, namely, that the keratosis of the palms and soles produced by arsenic persists after withdrawal of the drug. After the

injury to the tissues to which Dr. Robinson has referred, the effects of the drug persist and offer a chance for further change. I have in mind now the case of a young woman, who, after taking large doses of arsenic, developed a keratosis of the palms and soles which still persists, although she gave up the use of the drug six months ago.

DR. HARTZELL (closing the discussion): I may say that when I began the study of this subject, I was strongly biased against the view that epithelioma might arise from the use of arsenic. A careful study of these cases, however, showed that the epithelioma was always preceded by keratosis of the palms and soles, and, furthermore, that in these cases the epithelioma developed very early. Another point was that the lesions were multiple, indicating some special cause for them. Those who object to the view that arsenic may produce epithelioma, although they are willing to admit that it may produce a keratosis, and that the latter may produce epithelioma are perhaps too critical. Simply because a certain condition intervenes between the two it does not prove that the drug is not responsible for it. If arsenic can produce a keratosis, and a keratosis can produce an epithelioma, certainly the arsenic is responsible for the epithelioma.

In reply to the question asked by one of the speakers, as to whether other parts of the body besides the palms and soles have been subject to this course of events, I would say yes. In the last case reported by Mr. Hutchinson, the epithelioma occurred on the back and abdomen, the palms not being affected at all.

I wish to refer to another point which is directly in the line of the President's address, and that is, the effect of certain chemical substances upon the tissues. Certain chemicals, when applied to the epithelium, are capable of giving rise to abnormal cell division. Potassium iodid, and other drugs, when applied to wounds, have been known to produce this peculiar condition of the cells, which while not characteristic of carcinoma, is frequent in carcinoma. In arsenic we have a drug which we can easily imagine might produce the cell changes which occur in epithelioma. Some have asserted that epithelioma is simply the result of local irritation, but they have failed to say what the local irritation did. If they meant that the local irritation arose from the presence of the keratosis, that might be true.

I do not wish to be understood as asserting that arsenic often gives rise to epithelioma, but simply that under certain conditions it may give rise to it.

Imperfect or Deficient Urinary Secretion as Observed in Connection with Certain Diseases of the Skin.—DR. L. DUNCAN BULKLEY read a paper on this subject, which was based on two thousand urinary analyses, representing 569 patients, including 265 males and 304 females, of all ages. They related to patients with most varied diseases of the skin, over fifty different affections being represented. In many instances but a single examination was made of the morning and night specimens, because of some clinical indication or thought of a possible urinary derangement; in many other instances, repeated analyses were made, often extending over long periods during treatment, and the results of remedies were thus observed.

The specific gravity varied from 1045 to 1003; of 1816 analyses, 463, or over one-quarter of the whole number, had a specific gravity of 1030 or over, while there were many with a specific gravity ranging from 1026 to 1030. There were but 51 specimens with a specific gravity of 1010 or under. Albumen was found

in but 62 specimens, relating to 26 patients, in the entire 1816 complete analyses. Sugar was found but 36 times, relating to fifteen patients. The alterations in the urine were largely due to variations in the organic salts: thus, oxalate of lime was recorded in 460 specimens, uric acid in 269, and the urates in 240. The amorphous phosphates were the most frequent deposit, being recorded 717 times, relating to 271 patients; the triple phosphates were recorded 118 times, relating to 55 patients. The reaction of the specimens varied greatly. The urea varied in quantity much less than would be expected. Of 531 specimens in which this was accurately determined, the percentage varied from .04 per cent. to .004 per cent., the normal being about .02. In 353 specimens the urea stood at .02 per cent. or over, and in 178 specimens, or one-third the whole number, it was below the normal amount. The phosphates and chlorids varied greatly on quantitative analysis: thus, in but 16 per cent. of the analyses were the phosphates normal or above, and in but 8 per cent. were the chlorids up to the normal standard. The sulphates were the most stable constituent, rarely varying from the one per cent. found in normal urine.

Coming to the urinary changes observed in connection with special diseases of the skin, Dr. Bulkeley said that 924 of the urinary analyses related to 316 patients with eczema; of these, 183 were males and 133 females, almost all of them adults, of various ages. While a few of these specimens were healthy in all particulars, very few showed a gross or radical departure from the normal standard. Many were found with a very high specific gravity; in many, on the other hand, it was low, the average being 1023. The urea and chemical constituents showed the very greatest variations. Also the urinary salts; so irregular were the proportions of these in various specimens that no figures can express the conditions found. The sulphates were slightly in excess.

Acne is a disease constantly associated with disturbances of assimilation, and the analyses of the urine showed abundant evidence of these errors. There were 503 urinary analyses, relating to 93 cases of acne. The specific gravity varied from 1044 to 1004, the average being 1025. As in eczema, the chlorids and phosphates were below normal. The sulphates were slightly increased.

Pruritus was accompanied by urine of very different characteristics, as shown by an examination of 98 specimens from 10 patients. The specific gravity varied from 1036 to 1008, the average being 1024. The acidity was considerably above normal, and the urea averaged 2.5 per cent. The amorphous phosphates were found microscopically in almost all the specimens, with uric acid, oxalate of lime and urates in a few. One specimen contained a trace of albumen.

In psoriasis the specific gravity averaged 1026. The acidity was high and the oxalate of lime was a very frequent microscopic object, being recorded 28 times, and urates 17 times.

The remainder of the analyses related to too few patients in each disease to admit of any general averages being made. In one case of alopecia areata, the urine was persistently very acid and of a high specific gravity. In nine cases of furunculosis the average specific gravity was very high, but the acidity was very low. In several cases of lichen planus the specific gravity of the urine averaged high, but the acidity was low. In three cases of urticaria the same was observed.

In reviewing this data obtained from a study of these analyses, Dr. Bulkeley said, one is disappointed with the actual results as to positive facts connected with the condition of the urine in the different diseases mentioned, for it must be conceded that no very sharp lines of differentiation can be drawn between

them. The object of the study was to call more attention to the fact that in many patients with skin diseases there are errors of nutrition and metabolism which must have something to do with impairment of the integrity of the skin.

DR. ALLEN: I do not know that I can do justice to this paper, which has been of great interest to me. I have never examined the urine as systematically as Dr. Bulkley has done, never having had an office assistant, nor the time to do it myself. I have, of course, collected a great many specimens and examined them partially, some microscopically, the majority for albumen and sugar, or for deposits or crystals, but as for making a complete analysis as a matter of routine, I have never been able to do it.

In listening to Dr. Bulkley's statistics, I was rather struck by the few cases of glycosuria. In my practice, both public and private, I have found sugar much more frequently than Dr. Bulkley's figures would indicate. During the past three months I can recall six cases in Jewish women among others who were suffering from pruritus about the genitals.

DR. JAMES C. WHITE: I think the Association is greatly indebted to Dr. Bulkley for his industry in compiling these statistics, and the candid manner in which he has presented them. I think they will relieve us from the necessity of repeating them, in the expectation that anything is to be gained in the treatment of skin diseases by such analyses. I think he has done all that is necessary in this direction. The results of his urinary examinations show such great disparity as regards the quantity and constituents of the urine in various skin diseases that no deductions of value can be drawn from them.

DR. CORLETT: I have been interested in listening to Dr. Bulkley's very carefully prepared paper. A number of years ago I instituted a few examinations of this kind, but as nothing definite could be ascertained I gave it up. The point to determine is whether the secretion of the kidneys has any etiological bearing upon diseases of the skin, either primary or secondary. By suitable diet we may change the percentage of urea and various other excretory products. I remember one case where disturbance of the urinary secretion seemed to act as a direct etiological factor in the production of a skin disease. The patient had an attack of acute suppression, with edema, followed by an eczema, which lasted about a week or two, or until the secretion from the kidneys was reestablished. About a year or two later there was a relapse, with the same phenomena.

I am surprised that Dr. Bulkley has met with so few cases of glycosuria. It is quite common in my experience, frequently accompanying pruritus about the genitals in both sexes.

DR. GILCHRIST: I wish to congratulate Dr. Bulkley on his able paper, and I would suggest that it might be well to have control experiments in the same direction. For example, this might be done by examining the urine of friends or relatives who accompany the patient, in order to learn whether the same variability in the constituents of the urine existed.

In the few examinations I have made, I have noticed an excess of indican in urticaria, while in pityriasis rosea I found a high specific gravity with excessive urates. I collected quite a series of these latter cases.

I agree with Dr. Corlett that in cases of pruritus of the genitals, sugar is often present in the urine.

DR. KLOTZ: It has been my custom to examine the urine in a great number of cases of skin disease, and my results have been much the same as those of Dr. Bulkley. I have been astonished by the large number of urines of a high specific gravity, with an excess of uric acid. I do not think the opinion is uni-

versally accepted that the kidneys are simple filtering organs, but believe that they have a real glandular function, and are to some extent organs of secretion.

I would like to call attention to the fallacy of the Fehling test for sugar, as it often gives a discoloration when no sugar is present. I think that in all cases the fermentation test should also be applied.

Intelligent averages can scarcely be drawn from figures such as those presented by Dr. Bulkley, unless the extreme cases are excluded.

DR. ROBINSON: I was very much pleased to hear Dr. Bulkley's paper, but I do not agree with Dr. White's statement that because of its thoroughness it will save the rest of us from repeating his experiments. In the treatment of diseases in general, and especially in the treatment of inflammatory affections of the skin and those associated with vasomotor disturbance, we should always endeavor to have, as far as possible, a normal physiological condition of the system. Consequently, I hold that in a great many cases it is absolutely necessary for us to make such examinations as Dr. Bulkley has made, not to show any relationship between the condition of the urine and that of the skin, but to enable us to place that patient's system in a normal physiological condition, so that our drugs may have a better effect, a better chance to act. If it is a parasitic disease, the nature of the ground is often an important factor.

DR. S. SHERWELL: Dr. Robinson has said already about all I could add to this discussion. Dr. Bulkley deserves a great deal of credit for the mass of painstaking statistics furnished. They are specially of interest as regards eczema and psoriasis, and to me particularly in the case of the latter affection. I have nearly always found a high specific gravity and excess of uric acid in the water of those suffering from the latter affection: it seems to me, too, the rule in eczemas, but that is not so absolute. I make it a rule always to examine the urine of patients, and believe in (as he does) great attention to any aberrations from the general health.

DR. JAMES M. WINFIELD of Brooklyn: Dr. Bulkley is certainly to be congratulated upon the care he has taken in making his urinary analyses. I would like to indorse what Dr. Klotz said about the inaccuracy of the Fehling test for sugar. It is very faulty, and often gives a discoloration when no sugar is present.

I believe that every practitioner of medicine will admit that faulty metabolism has much to do with skin diseases. If the kidneys are not acting well, certain skin diseases, especially eczema, will be aggravated, and it is undoubtedly true that by aiding the kidneys by drinking plenty of water we can do much to relieve the condition.

DR. GEORGE T. JACKSON of New York: I am firmly of the opinion that in order to benefit your patient suffering from a skin disease you should first try to find out if anything is wrong in his general condition. Acting on this principle, I have the urine of my patients examined by an expert, which saves me time and gives me more positive results than if I did it. In a recent very severe case of psoriasis which came under my observation the patient's ankles were much swollen, and I was quite edified to find the urine all right with the exception of an excessive amount of indican. Upon that basis, I gave her salicylate of sodium in order to correct intestinal fermentation, and under this treatment, combined with local applications, she at once began to improve much more rapidly than under my previous method of treatment.

DR. FORDYCE: I think that some of our present methods of examining the urine are faulty. It is important to determine the functional activity of the

kidneys. This point was prominently brought out by Dr. Herter in the Carpenter lecture delivered at the New York Academy of Medicine a few years ago. We should try to ascertain not only how much urea is excreted, but also how much is in the blood. The blood may be saturated with this salt, in spite of the fact that the kidneys are excreting it freely. The functional activity of the kidneys can be determined by giving a dose of potassium iodid, since we know how long after it should appear in the urine. If the kidneys are in a normal condition, it should take forty-eight hours to excrete the drug; if it takes longer, it shows that the kidneys are not doing their proper work. The same is true of methylin blue.

We have clinical evidence to show that in certain skin diseases there is a deficient elimination of urea and other toxic agents. During the past year I have paid considerable attention to this, and have noticed that attacks of recurrent eczema were preceded by deficient action of the kidneys and uremic symptoms. I have a strong idea that the kidneys may be functionally inactive in certain eruptions which come under our observation.

DR. BULKLEY (closing the discussion): I have not much to add in closing. I must differ from Dr. White, who thinks that we should not go over this same ground again. I hope this is only the beginning. Next year I intend to collect some figures bearing on the quantity of urine and solids excreted daily. If we persevere in this work, I hope that at some not far distant day we shall be able to trace some relationship between the condition of the kidneys and certain skin diseases. Skin diseases of the inflammatory type are characterized by a lessened secretion of certain salts, together with a smaller quantity of urine of higher specific gravity, and a slight increase in the urea.

I am glad that Dr. Robinson referred to the importance of urinalysis in many skin diseases, and that it should not be neglected. I also agree with what Dr. Fordyce said. I have time and again seen changes in the urine preceding an eczematous eruption disappear with the eczema.

I was surprised at the few cases in my list in which sugar was present. The tests for sugar were, of course, very carefully made, to avoid all chance of error. I expected to find it oftener than I did. I quite agree with those who have said that we should expect to find sugar in pruritus about the genitals, but, nevertheless, I often failed to find it in those cases.

Two Epidemics of Alopecia Areata in an Asylum for Girls.¹—By DR. J. T. BOWEN of Boston.

DR. JAMES C. JOHNSTON of New York: I am very glad of the opportunity to compliment Dr. Bowen on this interesting paper, which I regard as adding not a little to our knowledge of this disease. My opinion with regard to its etiology is that the cases which are of nerve origin are practically as regards numbers negligible; that they occur only as the result of nerve lesion, as in the case of a scar pressing on the supra-orbital nerve. The rest of the cases are no doubt infectious, and it seems from this communication that they are contagious as well.

With regard to the histological findings, especially the non-appearance of any micro-organism, I would suggest that there might have been an error in the method of research. Sabouraud distinctly states that the tissues for examination

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must be taken at the earliest stage of the disease, and from the edge of the spreading area, where the apex of the utricle may be seen projecting above the hair-follicle. A week later the examination may give negative results.

DR. SHERWELL: I still reserve my opinion that the possibility of a neurotic origin in these cases has not been effectively disposed of. Now, as always, I believe anyhow that the designation "alopecia areata" should be reserved for the neurotic form, others to be named from their appropriate etiological basis.

DR. ROBINSON: In my article on alopecia areata in Dr. Morrow's work, I maintain that the disease in all cases is parasitic, providing that we limit the term alopecia areata to a disease with certain definite clinical symptoms. Take a case where the lesion begins as a small spot, gradually spreading at the periphery: such a case I would call alopecia areata, and no other, and those cases, I believe, are invariably due to the presence of a micro-organism. Where that organism is situated I am not prepared to say now. I am doing some work along this line, and although I am not yet prepared to draw any definite conclusions, I would say that they differ from those of Sabouraud. I have been unable to cultivate any special undescribed micro-organism in cases of alopecia areata, but I have observed the almost invariable presence of the staphylococcus-epidermis albus in spite of very thorough disinfection of the diseased area. Even in sections of tissue punched out down to the chorion these organisms were usually found.

In my experiments I found that by injecting cultures of this staphylococcus epidermis albus, it often caused a falling out of the hair over an area sometimes as large as a twenty-five-cent piece, without any signs of inflammatory process, and after a few weeks the hairs would grow in again. As far as that organism is concerned, these experiments showed that its toxins can produce changes which will lead to falling out of the hair, and the question arises in my mind whether that is not the organism which is at work in alopecia areata. I have always found the histological changes much more marked than Dr. Bowen has stated. There are often marked inflammatory symptoms, and they are never absent entirely. I do not regard alopecia areata a disease of the hair-follicle itself, but of the tissues, the hair falling out secondarily, in consequence of interference with the structures from which the hair is produced; the organisms do not reside in the hair structures.

DR. KLOTZ: I listened with much interest to Dr. Bowen's paper. I consider it fortunate for the patient, Ethel S., that she did not live a hundred years ago, for she might have been burned at the stake as a witch.

Even now it seems justifiable to think of the possibility of a psychical element in the cases reported by Dr. Bowen, particularly as they occurred in an institution for girls, where hysterical conditions are of such common occurrence. Naturally, at the present time we would look for a microbe as the true cause. Still, the possibility of hysteria and imitation should be borne in mind.

DR. GILCHRIST: I heard Dr. Bowen's paper with much interest, particularly that portion describing the histological findings. I would like to inquire whether the author, in searching for the organisms, followed the method described by Sabouraud? This consists in first applying acetic acid to a very recent patch, then after twenty-four hours the horny layer is easily removed: collodion is then applied and on its removal the contents of the utricle is attached to its under surface. I would also like to ask whether he found the utricle present in the early stages of the disease? I agree with Dr. Robinson that all these cases are parasitic. Sabouraud has examined 200 cases and has always found these organ-

isms. The failure to find them in the later stages of the disease is probably due to the toxins that are formed. I have seen Sabouraud's specimens of these bacilli, decolorized by Gram's method.

With reference to the increase of cells about the vessels, to which Dr. Bowen referred, we usually find this phenomenon in young persons—more so than in old people.

I was extremely interested in Dr. Robinson's statements about the *staphylococcus epidermis albus*.

DR. MONTGOMERY: I long ago came to the conclusion that alopecia areata is a parasitic disease, from its clinical course, and I entirely agree with Dr. Robinson in that respect. The great difficulty has been to learn of epidemics, such as Dr. Bowen has described. I have never seen one. We read about them in France and England, but they are certainly rare in this country. I have, however, seen quite a restricted epidermic in a family: a little boy became affected with alopecia areata, and some time after that three of the younger members of the family were similarly attacked; quite an interim elapsed between the first case and the three other cases. About three years ago one of the professors in the University at San Francisco was attacked with alopecia areata, and shortly afterwards his assistant was similarly affected.

The above are the only two instances in my experience where this disease in any way approached an epidemic. I have never repeated the experiments of Sabouraud. The four cases in one family, to which I referred, occurred before Sabouraud's work was made public.

DR. HENRY W. STELWAGON of Philadelphia: I think that all of us have, from time to time met with cases of alopecia areata which suggest the contagious character of the disease, although three or four years ago I made the statement that I had never seen two cases in the same household. Since then I have seen several instances of two or more cases in the same family. From the collective observation on this point I feel now very strongly that we must accept the idea that we have several varieties of the disease to deal with, one of which probably does possess contagious elements.

DR. HYDE: I want to thank the reader of the paper for his valuable contribution to this subject. It was time that we had an American presentation of the facts bearing upon the possible transmission of this disease by epidemics. Upon this question I take the position that I have before, namely, one or more smooth, bald patches on the scalp or body do not constitute a special disease: they are symptoms of some trouble, and it may be symptoms of several different diseases. If we call these all symptoms of alopecia areata, there is probably among them a parasitic variety. Evidence of this has been presented here and by Sabouraud. On the other hand, we all know of cases of this sort where patients were constantly in contact with other members of one family and no transmission of the disease has occurred. Up to eighteen months ago, I believe, I had never seen two cases of alopecia areata in the same family. Then a married woman of fine physique came to me, exhibiting symptoms of an ordinary alopecia areata on the scalp. She recovered after a long period of treatment, and in a while her father, a gray-headed gentleman, came to me with the same trouble. Both cases were typical. I said to myself, "Here is one of those instances for which I have been looking for years." I questioned him about his history, and he informed me that four months before, while riding his bicycle, he met with a collision and fell, striking his head on the edge of a curbstone. He

lay unconscious for a short time, but recovered without further trouble, and he had quite forgotten the accident when he came for advice about his alopecia.

To sum up this subject briefly, we recognize the fact that there is a parasitic form of this disorder, to which we apply the term *alopecia areata*, but we also recognize the fact that the condition to which we apply this name may be produced by other causes, and for one I am inclined to believe that the generalized condition, where every hair is swept from the surface of the body, is not of parasitic origin.

DR. WHITE: I had an opportunity of seeing some of the cases reported in Dr. Bowen's paper, including quite a number in the first epidemic. I have seen perhaps half-a-dozen instances where two or more cases of this disease occurred in the same family, but in those instances the condition differed from that of the children in the epidemics described by Dr. Bowen. I do not believe that the disease was *alopecia areata* at all, as we understand it, with the exception of the first case. That was a typical case of *alopecia areata*, but I do not feel sure that there was an absolute connection demonstrated between the first case and the others. The first patient affected had been in the asylum for several weeks or months before these other cases developed, which they did very rapidly—within a few weeks. The next epidemic occurred after the original patient had been absent from the asylum for a term of years and then had returned: the exact condition she was in upon her return is not known. Some time later the second epidemic developed very rapidly. I think in those cases we had to deal with a distinct clinical condition, as distinct as *alopecia areata* is from ringworm or other forms of alopecia. They undoubtedly belong to the type which has been described in France as epidemic *alopecia areata*, or bald ringworm, and I do not see any connection between it and ordinary *alopecia areata*, nor do I believe that the reader of the paper has absolutely proven any such relationship.

DR. ALLEN: I consider Dr. Bowen's paper a very important contribution to the transactions of this Association, and of great value to us. We have been in the habit, in the last few years, of reading the French reports of their epidemics of *alopecia areata*, and thinking possibly that they may have confounded the condition at times with *trichophytosis*. This being the first report which has been made in this country, is of interest and removes from us the necessity of relying solely on our own personal, individual observations. Heretofore it has been the rule that a man's views would be largely based upon what he personally had seen, and individual clinical observations would enter largely into our discussions of the subject: if one had seen two or three instances of *alopecia areata* in the same family, then he would lean towards the view that it was a transmissible disease, and if he had not, then he would apparently be very sceptical.

I think the time has come when we should accept a form of *alopecia areata* as one of the contagious diseases, or, if you wish, let us change our nomenclature and classification, so that it can be more appropriately placed in the list of diseases which are transmissible; occasionally occurring in epidemic form. I have always believed that a certain number of instances of *alopecia areata* belonged to a class which were transmissible. I have reported, on previous occasions, the occurrence of *alopecia areata* in two members of the same family. I have seen three such instances: one in which two brothers were affected by the disease, and two other instances in which two adults in the same family were attacked. In the last instance coming under my observation, one of the cases was very marked, going on to almost complete baldness; in the other case there was a history of injury just preceding the alopecia, and on this account some doubt

arose as to whether it was a pure case of contagion or whether the baldness was due to the injury. I believe the same rule holds good in alopecia as in sarcoma or carcinoma, namely, that these diseases may follow an injury. Alopecia areata may follow an injury, but where there are other instances of the affection in the same family, it would surely look as though the germs were there, the injury simply putting the soil in a more suitable condition for the development of the disease.

Just a few words in regard to the cases of universal alopecia, to which reference was made by Dr. Hyde. I have with me for the exhibition to-morrow the photograph of a little girl, who has been under my care for about a year. The hairs first disappeared in the usual manner in small areas; then the condition gradually spread until not a vestige of hair or lanugo could be seen anywhere on the body. At the present time, the hairs have commenced to reappear. I agree with Dr. Hyde that those cases are hard to classify. It is hard for us to believe that a germ disease produces such a general loss of the hair as that. I am prepared to admit that there may be different forms of this condition, the more so as I have recently had a case bearing on this point: A woman came to see me, bringing her child, which had marked ringworm of the scalp, the diagnosis being unquestionable; the mother herself had bald areas on her scalp, which any one would have clinically considered alopecia areata. Although no germs could be found in the mother's case, I believe that the lesions in both mother and child were in some way interdependent. We know—although we do not know why—that adults do not readily acquire ringworm of the scalp, although all their children may have it, but I have in two instances seen ringworm in children and bald patches in the parents, and I have also seen ordinary ringworm of the head in a boy and so-called bald ringworm in the case of his sister, a few years older. One presented the clinical type of ringworm; the other, of alopecia areata. I believe there is an intermediary disease between alopecia areata and ringworm, and when we find the germ which causes this disease we can give these conditions a better classification.

DR. BULKLEY: I have not much to say, and that is of a negative character. Amongst some hundred cases of alopecia areata, I think I have never yet met with two in the same family. It seems strange, but it is so. I remember a number of cases in children where others in the same household were more or less constantly exposed, but remained unaffected.

I was interested in Dr. Bowen's description of the lesion found in the majority of the cases in the asylum epidemic which he reported, because at Randall's Island in the past two years I have seen many cases of ringworm of various forms. I have now under my care at that institution from 150 to 200 cases of ringworm, and in perhaps thirty of them there are these bald patches, many of them oval or oblong, some smooth and irregular in shape, and without the stubbed hairs which are usually observed in these cases. Many of these, I believe, would be readily mistaken for ordinary alopecia areata. I have had a number of them examined, with negative results, so far as the presence of gross micro-organisms is concerned. I have looked upon them, not as cases of alopecia areata proper, but as a certain form of another disease which should receive an appropriate name, because these cases did appear to be contagious. I am a firm believer in the neurotic origin of the majority of cases of alopecia areata where every hair of the body is stripped off, and I do not think that those cases are contagious in character. It seems to me that there are two forms of the disease which resemble one another in many clinical features, one a true alopecia

areata, the other a baldness due to some parasite, and contagious in character.

DR. MORROW: Some years ago I read a paper before this Association at its meeting in Washington on alopecia areata, in which I detailed a number of cases, and in which I endeavored to show, from an analytical study of the literature of the subject that there were two forms of alopecia areata which were etiologically distinct, but which were clinically identical, or practically so. Dr. Dühring and a number of other gentlemen have reported cases of typical alopecia areata following an injury of one of the nerves supplying the scalp. In two cases which I described in detail in my paper there were evidences of a direct transference of the disease from the one to the other. The basis of my contention that some forms of alopecia areata were contagious was that this first patient, whose picture I showed at the time, had a sister who contracted the disease from him, presumably by wearing his cap. When he came home from college for the Christmas vacation, she was in the habit of wearing his cap, and a few weeks later, bald patches were observed on her scalp. This first patient became (and is to-day) totally alopecic: he has not a hair anywhere on the body, even the lanugo hairs have disappeared. When I saw his sister, she had just completed her final course at Northampton College, where she had been very closely confined to her studies. At this time, fully one-half of the scalp was denuded of hair; about half of each eye-brow had also disappeared, together with the eye-lashes and most of the hair on the pubes and under the arms. In her case, under the influence of treatment, the hair was restored, but two years later, while teaching school, where her duties were very onerous, she had a partial recurrence of this alopecia, from which she again recovered during her vacation. Since then she has had three similar attacks, each time getting well during her vacation. On one occasion she found it necessary to prolong her vacation for a year. In this case the disease seemed to have been contracted from the brother, but in its further course it indicated a neurotic influence, coming on, as it did, when she was overworked and had great demands on her nervous system. During her vacations, under the influence of treatment, she gets well, and this has been repeated a number of times during the past six or eight years.

I think that the lesions in the cases Dr. Bowen has described do not conform in every particular to our conception of the lesions of alopecia areata. Dr. Bowen, with his usual carefulness and attention to details, is very particular to state that these lesions resembled those of alopecia areata, but I do not know that he classes them positively under that term. I do not think there is any other epidemic on record which is so extensive and so rapid in its development as the one he has described. In none of the epidemics reported in France, which I referred to in my paper, were so numerous, nor did they appear and disappear so quickly as those in the epidemic described by Dr. Bowen. Within the past year I have had quite a number of cases of children suffering from alopecia areata: I have under my care at present at the New York Hospital four cases which correspond in their clinical appearance to alopecia areata: they all belong to the same family, being brothers and sisters. Some of the lesions are as large as a silver dollar or larger, perfectly smooth, and the history they give is that they developed, one after the other, within a few weeks.

My own impression is that there is a disease which corresponds in its objective characters to the description of alopecia areata, and that this disease is of parasitic origin.

DR. JACKSON: I only wish to add one clinical fact to this discussion. For many years I have been on the lookout for two or more of these cases in the

same family, and this spring was the first time such an instance came under my observation. The patients are two sisters, both over thirty years of age. The eldest one was first affected, and about four months later her sister's hair began to fall out in the same way. The patches in both cases are perfectly typical of alopecia areata. The sisters occupy the same room, and probably are more or less careless about the use of their toilet articles. There seemed very little doubt in this instance that the cases were examples of a contagious form of alopecia areata.

DR. ALLEN: I would like to ask Dr. Jackson if he now believes in a contagious alopecia areata? There was a time when he took the neurotic side of this question.

DR. JACKSON: I did believe there were two types of this disease, one contagious, the other not. I think so still.

DR. HYDE: I would like to add that between 1897 and 1899 the members of this Association reported 2315 cases of alopecia areata, no one of which was regarded as contagious; and yet at this session we have reported a series of cases supposed to exhibit evidence of transmission from one to another subject of the disease.

DR. SHEPHERD: Until this year I never saw an instance of the contagious form of alopecia areata. About three years ago a young man came to me, suffering from alopecia areata in a marked form. He recovered under treatment, but two months ago he had a recurrence, and a week or two afterwards a cousin with whom he associated came to me with the same affection. That is the only instance of this kind coming under my observation.

In another instance I have in mind the case commenced distinctly as an alopecia areata and went on to general alopecia, practically, as nothing was left but a peripheral rim of hair. Under the use of thyroid extract quite a crop of hair returned on the head, but only temporarily.

DR. GILCHRIST: About two years ago I saw an interesting case, which was diagnosed as alopecia areata and treated on that basis for some months. The patient was a young girl. The bald patches on the scalp gradually increased in number, and the alopecia practically became universal. The patient then began to show distinct signs of myxedema. Under thyroid extract the hair all returned, and at the present time she has a very good crop of hair and no signs of myxedema.

DR. BOWEN (closing the discussion): I do not wish to be understood as attempting in any way to dispose of the neurotic theory of alopecia areata by my description of this epidemic. My idea was simply to describe it, give the grounds for regarding it as contagious, and present the evidence for what it was worth.

Personally, it seems to me probable that there are various types of alopecia areata, and produced by entirely different etiological factors. The evidence that some are of neurotic origin is extremely strong. At the same time it is probable that epidemics like the one I have described are of parasitic origin. In presenting my paper I had no idea of claiming that many cases of alopecia areata might not be neurotic.

Dr. Robinson referred to the fact that the absence histologically of inflammatory signs about the lesions was unusual. My experience with these cases, previous to these epidemics, has been small. In these cases the atrophy of the glands, a fibrosis and sclerosis, were quite apparent, and earlier, acute inflammatory symptoms were present in very slight degree. Dr. Klotz suggested that

the cases might have been psychical in origin. This possibility was, of course, thought of, but we had no data upon which to base a conclusion of this kind. The hysterical hypothesis was, therefore, abandoned. Dr Gilchrist asked if Sabouraud's method of demonstrating the organisms had been tried. At the time of the first epidemic, in 1891, my impression is that Sabouraud had not gotten so far in his investigations of alopecia areata. In the second epidemic the opportunities for experimentation were not so favorable. I did try it in one or two instances, and I was unable to find what Sabouraud has described, namely, the follicle, in its extended form, filled with bacilli. Dr. White stated that my paper had not proved that there was any direct connection between the original case of alopecia areata and the succeeding ones, either in the first or second epidemic. That is certainly a most important point. I said in my paper it seemed to me more than probable that the girl who presented the first signs of alopecia areata infected the rest of the school. I do not know whether that is a fair statement or not. It seems to me more than probable, but that is a matter of individual opinion, after considering the evidence. In the original epidemic, the second case, which, like the first, was typical of alopecia areata, was observed three weeks after the first case. Naturally, in a school of that size, it might have escaped observation for a time. It was not, however, until four months after the discovery of the first case that the general epidemic was observed, and then the cases were all discovered at once, as the children had their heads shaved at certain times, and when that was done, the extent of the epidemic was discovered. This was also the case in the second epidemic, so it seems quite possible that many of the bald patches had been there for some time before their discovery took place. In the second epidemic, the second case was discovered one month after the original patient was readmitted, and three or four months later the extent of this epidemic was ascertained.

Dr. White said that these cases were not at all typical of alopecia areata. I have tried to emphasize the fact that there was quite a difference in the type of the epidemic from alopecia areata: this difference consisted in the jagged, angular outlines of the patches, as well as their great number, but I am quite sure that there were among these 65 cases quite a number that presented spots of typical alopecia areata, either alone or in conjunction with small angular patches. How many there were of these I cannot say at this moment, although I did know at the time. I should say that at least eight or ten of the sixty-five were typical of alopecia areata.

I suppose we have all seen cases of this character occurring in two or more members of the same family. I have seen it many times. Within the past two years I have seen two instances of it in physicians' families; in one instance a child and the maid who had charge of it were affected, in the other a child and the physician himself; in both instances the bald areas were on the occiput, low down.

As to the classification of alopecia areata which Dr. Morrow spoke of, I do not pretend to know where these cases should go. I do not know what else to call them, unless we invent a new name. We have been in the habit of classifying the cases which the French describe as *pelade* under the title of alopecia areata, and I do not know of a better term for them, or one less misleading.

Report of a Case of Congenital Dermatitis Herpetiformis, and Almost Complete Absence of Finger- and Toe-Nails.—By DR. S. SHERWELL¹ of Brooklyn.

¹Published in full, Oct., 1899.

DR. WHITE: I would like to ask Dr. Sherwell if there was any scarring following the lesions?

DR. SHERWELL: It is difficult to say whether the slight scarring was due to the lesions themselves, or the continual scratching. There were no scars on the face or ears. The lesions were present on all parts of the body in early childhood, but they were relatively light in character. I am uncertain as to whether there was any difference in them at different seasons of the year.

DR. WHITE: The case reported by Dr. Sherwell is suggestive, in some respects, of hydroa-vacciniforme, commencing in early infancy and continuing up to the fifth or sixth year. At the last meeting I reported a case of this kind of the bullous type. Those cases lack the true symptoms of dermatitis herpetiformis, the lesions leaving decided scars, occurring in winter rather than summer, and recurring winter after winter.

DR. JOHNSTON: I think, from the history of the case, and from what Dr. Sherwell has just told me, namely, that the lesions resulted from slight injury, that the case was possibly one belonging to the class of epidermolysis bullosa, which is sometimes considered congenital. The features of the case reported by Dr. Sherwell certainly correspond with that affection. As far as the condition of the nails go, I think that Dr. Elliot can furnish a reasonable explanation for it.

DR. SHERWELL: I do not quite agree with Dr. Johnston that the case was one of epidermolysis bullosa. This lesion does not appear on the palms of the hands, which suffer affront more than any other part of the body. In my case, more particularly on the dorsal surface of the arm, these bullous lesions came out.

DR. FORDYCE: I came to the same conclusion as Dr. Johnston that the case was one of epidermolysis bullosa. The lesions are more apt to appear on the dorsal surfaces than on the palms, where the epidermis is thicker.

DR. GEORGE T. ELLIOT of New York: As far as my case, which has been referred to, was concerned there was no part of the body on which the lesions could not be provoked. The only reason why there were more on the palms and soles was that those regions were naturally subjected more often to pressure. The lesions were very numerous also about the region of the collar and on the arms, where he wore rubber-bands to keep up his shirt-sleeves, that is where more or less constant pressure existed.

I am unable to discuss Dr. Sherwell's paper, as, on account of the noise, I could not hear very much of it.

DR. SHERWELL: The woman whose case I reported does her own housework and washing, besides other manual labor which tends to bruise the hands, but these bullæ never appeared on the palms.

DR. S. POLLITZER of New York: Dr. Sherwell said there was intolerable itching in his case. I do not think this is a regular feature of epidermolysis bullosa.

DR. ELLIOTT: Such cases have been reported.

A Maculo-Anesthetic Lepride of the Palm.—By DR. D. W. MONTGOMERY¹ of San Francisco.

Sources of Infection in Leprosy.—By DR. P. A. MORROW of New York. Recognizing Hansen's bacillus as the active, efficient cause of leprosy, it may

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be assumed that all of the tissues of the body of the leper containing this organism constitute possible sources of infection; the conditions of infection being that the bacilli should be discharged from the body of the leper, brought in contact with and be capable of penetrating the tissues of a healthy organism in an opportune place favorable for its germination.

It is evident that the more numerous the bacilli and the greater the facility of their discharge from the body of the leper, the more active and virulent the sources of contagion. The tubercular leper, whose cutaneous tissues swarm with the bacilli and which are given off in myriads from the open surface of the broken-down tubercles, has undoubtedly a greater contagious activity than the anesthetic leper in whom the bacilli are comparatively few, embedded deeply in the nerves from which they cannot readily find egress.

The investigations of Sticker show that in the one hundred and fifty-three cases examined by him evidences of the presence of bacilli in the excretions of the nasal mucous membranes were found in a large percentage of all the cases. In these one hundred and fifty-three cases fifty-eight were tubercular, sixty-eight anesthetic, and twenty-seven mixed. Of the fifty-eight tubercular cases, bacteriological examination showed the presence of bacilli in all but two. Of the sixty-eight anesthetic cases only twenty-three contained no bacilli, and of the twenty-seven mixed cases only one was free from bacilli. He concludes that the primary affection or its neighborhood in the nose is chiefly the origin from which the bacilli regularly and in enormous numbers are given off in the patient's proximity. Only the purulent sputum of a few lepers (twenty-two out of one hundred and fifty-three) contained such enormous numbers of bacilli as the viscid or purulent secretion from the diseased nasal mucous membrane. Not even the suppurative nodules can come in comparison with the above-named lesions in the spreading of the bacilli. He considers that the nose continues to be an active focus for the projection of the bacilli during the entire course of the disease, even during the period when the cutaneous manifestations have temporarily disappeared.

The physiological secretions may contain bacilli: the saliva is loaded with them when the leprosy lesions are situated in the buccopharyngeal cavity. The bacillus has not been found in the urine.

Pathological secretions. The altered secretions of the nasal mucous membranes, the muco-pus and blood, the discharges from broken-down nodules and ulcerating surfaces contain the bacilli in vast numbers. It is a question whether the pathological secretions of lesions in lepers not produced by leprosy contain the bacilli. In addition to the sources of infection already described it is probable that every open wound or pathological break in the continuity of the skin may afford egress to the bacilli.

Although the pathogenic agent of leprosy has been identified, and its constant presence in the lesions it causes demonstrated beyond all possibility of doubt, there are many points connected with the modes of its entrance into the system and the conditions which favor its growth and propagation which are yet undetermined. It is very probable that the modes of leprosy contagion are many. While we must recognize that the knowledge of the possible numerous and varied processes by which leprosy contaminations take place possesses the highest interest and importance from a prophylactic point of view, yet it must be confessed that the precise manner in which the leprosy virus is transferred from one individual to another is unknown.

The bacillus leprosy must be transmitted either directly or immediately from

individual to individual. It has been suggested that it may run through a stage of intermediate life (spore condition) which we are at present unable to detect, either on account of the minuteness of the spores or on account of the imperfection of our staining methods; but which may be present in the soil, water, or food, but only can get into them from the diseased tissue of the leper (Arning).

It is possible that the contagious activity of leprosy, like that of syphilis and other infectious diseases, may undergo certain modifications during the evolution of the disease and be inoculable only at certain periods.

Whether leprosy may be propagated by inoculative contact, through sexual intercourse, through the skin by accidental wounds and lesions of continuity; whether it may be conveyed by the process of vaccination; by bites or stings of flies, mosquitoes, and other insects; whether its virulent principle may attach to the soil, water, and food, and be introduced as are the germs of cholera by imbibition, or by inhalation of the virus contained in the sputum, disseminated in the form of dust through the air, as in tuberculosis; or whether objects surrounding the leper upon which the virus has been accidentally deposited may serve as a medium of transference from one person to another, are points concerning which there is great diversity of opinion. The absence of any definite primary lesion upon the outer surface of the body which marks the point of entrance of the virus into the system, tends to still further complicate the difficulties in solving the pathogenetic problem.

Sticker makes the sweeping statement that in about ninety-six per cent. of all cases, the primary focus of the disease is in the nasal chambers, and that leprous contamination is from nose to nose.

In the writer's opinion, most observers err in assuming that there is *one exclusive mode of infection* in leprosy. It is probable that, like the bacilli of anthrax, glanders, and tuberculosis, the mode of entrance of the parasite into the system is not unique, but multiple. We know that the bacillus of tuberculosis, which presents so many analogies with leprosy, may enter through the respiratory tract, the intestinal mucous membrane, or be inoculated through the skin. I believe that, similarly, the bacillus lepræ may be introduced through more than one channel of entrance. Direct inoculation through the skin, in any of the manifold ways which have been considered, plays in my opinion a very unimportant rôle in the propagation of leprosy. In the vast majority of cases, I believe that the vehicles of the virus through which contagion is effected are the secretions of the nose and mouth, and that the port of entrance is the mucous membrane of the respiratory and intestinal tract, with secondary infection through the blood or lymphatic system.

Conditions Influencing Infection.—Under this heading, the following factors were taken up and discussed: Individual predisposition; inflammation of the upper air-passages—i. e., "cold" or "catarrh"; unhygienic habits and surroundings; climate, race, age, and sex.

DR. MORROW also recited the history of a case of lepride of the scalp.

DR. WHITE: In view of the generally accepted dictum that leprosy does not occur upon the hairy scalp, I would like to ask Dr. Morrow whether the lesions in his case are associated with alopecia areata?

DR. MORROW: I will say that the statement is universally made that the hairy scalp is exempt from alopecia in leprosy. It has been noted in countries where the disease is endemic that so many of the patients have magnificent heads of hair, even when the eyebrows and beards have entirely disappeared. The hair falls out only when the region is the site of a tubercular infiltration: often little

tufts of hair remain in the skin of the face between the tuberculous masses. The face, denuded of hair, is in striking contrast to the scalp, which is usually unaffected.

In reply to Dr. White I would say that I do not think the scalp lesions in my case were associated with alopecia areata. The loss of hair followed the appearance of tubercular lesions. The statement is usually made that the hairs covering anesthetic leprous patches become white, but that is not invariably the case. In most cases, I think, the nutrition of the hairs is affected, and they become thin and gradually fall out.

DR. GILCHRIST: In the only case of leprosy which we have had at the Johns Hopkins Hospital, the leprous bacillus was easily found in the scraping from an excoriation on the forearm. I would suggest this method of examination in every case of suspected leprosy. The cutaneous lesion curetted, the material obtained is thoroughly mashed and then stained as in examination of sputum. The case of leprosy I refer to was under Dr. Osler's care; it was both tubercular and anesthetic.

DR. POLLITZER: Ten years ago, in Unna's laboratory, I examined the skin in a case of tubercular leprosy, and the portions of the skin which I selected were perfectly normal, as far as I could detect. There were, however, lepra bacilli found in the sections. I imagine that this is the rule; that in tubercular leprosy the entire system is simply flooded with bacilli, which may be found anywhere.

DR. FORBYSIE: I have made a number of attempts to find bacilli in anesthetic leprosy, but thus far without result. It has long been my impression that in these cases the bacilli exist in the nerves, and that it is through the neuritis set up that we get these macular anesthetic patches.

DR. MONTGOMERY: As far as finding leprous bacilli in cases of tubercular leprosy is concerned, you can find them anywhere. I remember in one such case, during a phlebotomy, I collected some of the blood as it squirted out, and an examination of it showed that it contained troops of the bacilli: vast numbers of them. This shows that they undoubtedly float in the blood. I think it is said that they have never been found in the marrow. I have never looked for them there.

As far as maculo-anesthetic leprides are concerned, and their being the direct product of the bacilli, I think probably that they are, and that they are not trophobiontoses. Hanson and Looft have found the leprous bacilli right in the patches themselves, and since then quite a number of men have demonstrated the bacilli in patches in the cases that are purely maculo-anesthetic. Of course, the leprosy may be in other parts tuberculous and that fact escape detection. It is pretty generally admitted now that these maculo-anesthetic patches are due to the direct action of the bacillus itself.

I have never yet seen a case of maculo-anesthetic or tubercular leprosy of the scalp that I can remember. I have, however, seen an erythematous patch of the scalp which I could not distinguish as being due to leprosy. I remember that in company with Dr. McGowan of Los Angeles I looked over the cases in the San Francisco pest-house, and there were some there—I do not recall now how many—who had some reddish macules on the scalp, but whether they were leprous in character or not I do not know. The patches had not the characteristics of that disease. I have never seen the hair turn white in patients with maculo-anesthetic patches, and I do not think that this occurs.

DR. MORGAN: I have nothing to add except to state that most authorities deny that the bacilli are found in the blood, excepting possibly during attacks

of leprosy fever and during the last stages of the disease. In the serum treatment of leprosy, the first plan followed was to take blood from a leper and inject it into a horse, and after making a number of such injections, to employ the horse's serum. The objection raised to this method of treatment was that there are no bacilli in the blood of lepers. The originator of this method, however, claims to have taken blood from selected cases of leprosy during or shortly after their congestive attacks: these attacks are very common in the tubercular form of leprosy, and the bacilli are then, he claims, found in the blood, but other authorities state that the bacilli do not habitually remain in the blood.

Darier has made some investigations in the pathology of the macular lesions in anesthetic leprosy, and in one case he stated that he found bacilli in a pigmented patch in a purely anesthetic case. I at one time dissected off about an inch and one-half or two inches of such a lesion, going entirely through the thickness of the skin, and embracing a portion of the healthy skin surrounding the lesion. This specimen was examined by Dr. Fordyce, but no bacilli were found. It is the impression of those who have given this branch of the subject much study that the bacilli, in the anesthetic cases, are chiefly embedded in the nerves and cannot be found in any other tissues of the body, only under exceptional conditions. I think Hanson has found them on rare occasions in the lymphatic glands. In tubercular cases they have been found in the follicles of the skin and on the free surface-skin, but with the exception of Darier's case very few have been demonstrated in pure anesthetic leprosy.

Necrotic Granuloma and Indurated Erythema in the Same Subject.¹—

By DR. JAMES C. JOHNSTON of New York.

DR. HARTZELL: I have listened to Dr. Johnston's paper with much interest. It is a subject which has interested me for some time past, chiefly because I feel that I do not know enough about it. Our French confrères have given us this term *tuberculide* and *para-tuberculide*, but it seems doubtful whether we have sufficient grounds for dubbing these lesions with these titles. The reasons advanced are largely theoretical, because we do not know that the tubercle bacilli are responsible for these lesions. It is true that they occur in persons who show some manifestations of tuberculosis, or of tubercular cachexia, but there is a complete failure to demonstrate the bacilli. Efforts to produce such lesions by the use of the products of the tubercle bacilli have also failed, and all this should lead us to make haste slowly in attributing these lesions to tuberculosis.

I wish to refer briefly to a case which I saw a few years ago. The patient was a young woman with lesions on the calf of the leg which were typical in appearance of the *erythema induratum* of Bazin. She also had chilblain lesions on the backs of the hands. Later on a small, nodular eruption appeared, resembling the papular form of *erythema multiforme*, showing the central punctum which is seen in such eruptions. That it was not *erythema multiforme* of the ordinary type was proven by the subsequent course of the disease. Instead of fading away, the lesions became purple or dark, like a *tuberculide*, with a central point of necrosis. That case suggested to my mind the possibility of these lesions being due to toxemia. It was certainly unique, differing from the ordinary type of these cases.

DR. POLLITZER: Personally, I have had no experience whatever in examining the microscopic structure of the lesions of indurated erythema. The cases are very rare, and observations on the histology of the lesions are so extremely few

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that it is a little early to generalize, especially in view of the fact that the observations we already have are not harmonious.

With regard to the necrotic granuloma, I have the honor of having been the first to examine, histologically, this condition. My examinations, which were made seven or eight years ago, showed that this disease, which the French investigators, up to that time, on purely clinical grounds, assumed to be a disease of the sweat-glands, was really an affection of those structures. I am glad that the reader of the paper agrees with me in holding that the lesions are primarily an affection of the sweat-gland coil, which undergoes coagulation necrosis, beginning as a cloudy swelling, and proceeding thence through the usual stages. I said in my paper at that time that, while the disease was probably due to some infection, I could not find, even by the most careful search, any bacteria in the tissues: still, it was not impossible, I said, that the trouble may be due to the excretion through the sweat-gland of some toxic element produced elsewhere in the system. In my patient, and in most of the cases that had been observed up to that time, there was no suspicion of tuberculosis. My own patient, a merchant in New York, whom I still see occasionally, is perfectly well to-day. I saw him recently, apparently enjoying robust health, with nothing suggestive of tuberculosis, nor is any member of his family afflicted with that disease. I think myself, therefore, that the theory that this particular granuloma is in some way connected with tuberculosis is not quite warranted by the facts.

DR. HENRY W. STELWAGON: I have only a few words to say in regard to this disease. The condition is a rare one, as we all know, but the idea has become rather fixed in my own mind that erythema induratum is of a tubercular nature. During the past dozen years I have seen four or five cases, and in almost every instance there was a tubercular history, either of the patient or of one or more members of the family. The character of the patient and the character and general appearance of the skin lesion indicated, in my judgment, that the disease was of tubercular origin, and it does not appear to me that we can throw that theory aside entirely simply because of the absence of tubercle bacilli in histological examinations. The same holds true of lupus erythematosus, which a majority of the foreign observers consider a form of tuberculosis of the skin.

DR. HYDE: What I have to say has been practically uttered by the last speaker. I believe there are morbid conditions of the skin in tuberculous subjects which are not in themselves tuberculous. The rarity of erythema induratum has been mentioned by two of the speakers. I have not seen over five or six cases during the past five years. I think my friend, Dr. White, a few years ago reported cases to this Association, and I took some part in the discussion to which they gave rise. In contrast with the significance of the facts was the experience we had in London at the International Congress, where quite a number of these cases were exhibited, and named as erythema induratum.

I think the diagnosis should always be made with exceeding care. The cases which Dr. White reported in his paper were, in my judgment, accurately described, as instances of erythema induratum. I have seen one or two patients in whom the evidence of tuberculosis was unmistakable, and where tubercle bacilli had been demonstrated again and again in other lesions of the body. In those cases, under good and proper treatment, the lesions of erythema induratum disappeared without much difficulty. This proved, I think, the nature of the disorder, which was, in my opinion, a dermatosis of the tuberculous.

DR. WHITE: It has been my fortune to see quite a large number of cases of erythema induratum. I have never seen it associated with these more super-

ficial forms of disturbance of the skin which have lately come to be regarded as tuberculides. I have not been able, in the majority of cases, to recognize any grounds for the belief that the disease occurred in persons who could be classed as tuberculous or scrofulous, or that the lesions were tubercular in character, unless we greatly widen our definition of tuberculosis, and use it to describe many chronic changes in the skin which we cannot explain in any other way; for example, lupus erythematosus. Unless we are going to base our diagnosis on minute tissue changes, recognized only with the aid of the microscope, I do not think we can select a chronic affection of the skin which so little deserves the term tuberculous as lupus erythematosus. We see a great number of these cases, going on for years and years, and in the vast majority of instances they do not manifest any clinical signs of tuberculosis. I think we see more cases of eczema terminating in tuberculosis than of lupus erythematosus. I do not hesitate to say that far more cases of eczema die of tuberculosis than simple cases of lupus erythematosus. Eczema is a very common disease, so is tuberculosis, and they sometimes chance to occur in sequence.

DR. GILCHRIST: It is often difficult, even in lupus vulgaris, to demonstrate the tubercle bacilli, but by mashing the scrapings from the lesion between two slides and then staining for tubercle bacilli as in sputum the organism can be much more easily demonstrated. That tuberculides are due to the toxins of the tubercle bacilli is a very plausible theory. In diphtheria we can produce many of the lesions of the disease with the toxins, and it is possible that while we cannot prove the presence of tubercle bacilli in tuberculides, the latter may be due to the toxins. If this be true, then the name suggested by Dr. Johnston, namely, paratuberculoses, is a very good one.

I would like to refer to the case of a young girl of seventeen, who was suffering from Bright's disease, and had lesions on the legs about the size of a silver half-dollar, perfectly symmetrical, with multiple openings, like a carbuncle. The surface of the lesions was slightly raised, and the skin covering them was of a deep, purple color. Through the openings, which were about the size of a large pin, sero-pus oozed out upon pressure. I regarded the case as one of probable tuberculosis. The discharge from the lesions showed no tubercle bacilli, and pieces of tissue removed from the lesions showed no tuberculous changes. Inoculations with portions of the tissue made into a guinea-pig and dog proved negative. In the sero-pus I found bodies which reminded me of blastomyces. I was unable to prove definitely that the case was either due to blastomycetes or tubercle bacilli, but clinically one would diagnose it as tuberculosis cutis.

DR. SHEPHERD: I had an interesting case of erythema induratum in my wards last year. There was well-marked enlargement of the glands in the neck, evidently tubercular. The patient had entered the hospital for the purpose of having these enlarged glands removed. After this was done, the erythematous lesions disappeared in the course of a couple of months. I looked upon the enlargement of the glands as being due to a toxemia.

DR. GEORGE T. ELLIOT: I am glad to agree with the remarks of Drs. White and Hartzell in regard to these tuberculides. It has always appeared to me, in view of the excessive frequency of tuberculosis, that if we wished to delve into antecedents and to base our conclusions upon them, we could find a tubercular history for any and for every cutaneous disease. The imagination of the majority of patients runs riot when we come to investigate family history, and I certainly would deprecate the basing of etiological facts upon the statement of patients, who are as liable to call a spade a steam-engine as to give it its right name. The

tuberculide theory seems to me to represent a *reductio ad absurdum*, especially when we find impetigo contagiosa and angiokeratoma (Mibelli) included in the category. I cannot but feel that the institution of the group tuberculides will only tend to obscure our etiological knowledge of many forms of disease which should be studied separately. I think it would be wise to drop not only that term, but also that other one, para-tuberculide. To me they simply mean we do not know the cause or etiology of a case.

As far as the erythema induratum (Bazin) is concerned, I would state that I have seen a number of cases clinically identical which got well under large doses of potassium iodid and local applications of mercurial plaster.

In regard to the granuloma spoken of by Dr. Johnston, I would recall to his mind a case presented by me at five successive meetings of the New York Dermatological Society. It was at first generally regarded as a case of syphilis; but finally all the members agreed that the case was one of hydradenitis. This case corresponded absolutely with those called tuberculides, but no trace of tuberculosis in the patient's antecedents could be found. Yet in view of the lesions and the theory elaborated, it ought to have been a tuberculide, verb. sap.

DR. BOWEN: I have seen quite a number of cases of indurated erythema. Quite recently an intimate friend of mine came to me with an affection similar to those described by the French as folliclis and tuberculide. The scarring in that instance was very slight. I understood Dr. Johnston to say that that should not be considered a strong feature in the diagnosis. In this case there was slight superficial necrosis, followed by an atrophic depression which has never lasted very long. The eruption was limited to the backs of the hands and forearms, sometimes on the wrists, and there was a recurrence for two successive years.

I wish to add my protest against committing ourselves to any such terms as tuberculide and para-tuberculide, while this subject is still in a theoretical stage.

DR. FORDYCE: I should like to emphasize the statement made by the reader of the paper as to the resemblance between these necrotic papules and a papulopustular syphilide. I recall a case reported some years by Dr. Bowen and myself which was regarded as a papular syphilide, and treated on that basis without success. At that time we knew nothing about hydradenitis, and finally concluded that it closely resembled an acne varioloformis of the face. I excised some of the papules in various stages of development, and called attention to the fact that the infiltration began about the sweat-coils, which went on to tissue necrosis and superficial scarring. This occurred a year or two before Dr. Pollitzer described his case, to which he gave the name hydradenitis. In the case I have reference to the lesions recurred symmetrically on the upper and lower extremities. They disappeared under the application of antiseptics, but recurred some months later. No micro-organism was found, although searched for at various times.

I think Dr. Pollitzer is mistaken that he was the first to call attention to the localization of the disease about the coils.

DR. POLLITZER: I must disclaim the honor of having originated the name *hydradenitis* for this disease. It dates back forty or fifty years. The name had been used by French surgeons to describe a condition that occurred most commonly in the axillæ and about the breast and anus, and it had been used also by Bazin for a syphilitic affection which he thought was localized in the sweat-glands.

What I think I did was to call attention to the fact that this disease, which had been called hydradenitis on clinical grounds, was really an affection of the

sweat-glands, and that the disease which Barthelémy had described a short time before under the term *acnitis* was the same disease. In France, where this term had first been used, the disease was so far forgotten that even Besnier failed to recognize Barthelémy's case as one of *hydradenitis*. I believe that at that time the recollection of the disease in question had passed from the minds of dermatologists. It was not mentioned in most of the text-books, or only briefly alluded to, and then usually classed with *furunculosis*. It was only after attention has been called to the disease by my paper (I think I may say this without overstepping the bounds of modesty) that a number of cases were recorded, among which a fair degree of harmony as to the facts prevails, the differences being simply regarding some of the interpretations. Dubreuilh, whose paper followed mine, and practically corroborated my observations, was the first to suggest that the Fordyce and Bronson case of "*acne variolus of the extremities*" was in reality one of *hydradenitis*.

DR. JOHNSTON: I endeavored not to precipitate the Association into a discussion of para-tuberculosis of the skin. As long as it has been drawn into it, however, particularly by the remarks of Dr. Elliot, I wish to say that the time has gone by when the subject can be treated in any such fashion. These conditions, which I called para-tubercloses, have been the subject of much painstaking investigation by careful observers, Hyde, Hallopeau, Boeck, and others, who are not in the habit of advancing ill-considered opinions, nor of going to the extreme some of the French have done. These conditions must be classified under some name, but the particular name matters little. *Lichen scrofulosorum* is the general type of these dermatoses. In *lichen scrofulosorum* only three times have the tubercle bacilli been found. It has been absolutely proven in no less than three instances that injections of tuberculin have caused this disease. If that is not direct evidence that this disease is toxic, then I do not know what conclusion to draw from it.

While the other diseased conditions which have been referred to do not approach the standard of *lichen scrofulosorum*, they occur, in the larger proportion of cases, in persons with tuberculosis, no matter in what country the statistics are collected, and in larger number than the ratio of tuberculosis to population. More than fifty per cent. of the cases occur in the tuberculous. The histological appearance of the lesions points to some form of poisoning, of what nature we are uncertain. In this fifty per cent. of cases, what theory fits as well as the tuberculous theory? We have a toxin which is isolated, and which we know has produced *lichen scrofulosorum*. We all know that these conditions—*e. g.* necrotic granuloma, do occur in healthy persons, but we do not know why.

As for *pityriasis rubra of Hebra*, *impetigo herpetiformis*, etc., those conditions represent a depraved condition of the system, in which the tubercle bacilli find an easy entrance and a favorable soil. That is why you have *pityriasis rubra of Hebra* so often associated with tuberculosis, but that does not explain the condition of para-tubercloses. These cases are extremely rare, and the limited number falling to one observer is the chief reason why mistakes have been made.

Dr. Pollitzer is right that the condition in his case was primarily an affection about the sweat-coils. Necrotic granuloma occurs about the hair-follicle and elsewhere. About eleven terms have been applied to this condition, and I adopted the name necrotic granuloma because it expresses the nature of the process.

The diagnosis of *erythema induratum* is not often easy to make, but it was in the classical case I reported. There were three relapses, and under specific treatment she grew worse. Another point with regard to the paratubercloses

is that on the same subject their transition may be watched through the various stages from erythema induratum to lichen scrofulosum. In every single case of acute lupus erythematosus of the disseminated type the patient has died of some form of acute tuberculosis.

With regard to blastomyces, I must plead guilty. I do not think any one has looked for blastomyces in either of these conditions. They may be present. We have looked pretty close at the discharges, but have not seen them.

DR. WHITE: Dr. Johnston says that according to statistics these conditions occur, in over fifty per cent., in the tuberculous. Of course, one man's statistics must be considered in conjunction with those others. Dr. Johnston mentioned three instances where injections of tuberculin caused lichen scrofulosum. Are we positive that it was due to the toxin of tuberculosis which was injected? Does not syphilis do the same thing?

What we want is evidence. We must not necessarily take things for proven because this or that man said so.

DR. GILCHRIST: In four cases of lichen scrofulosum which are on record the tubercle bacilli were proved to be present by actual inoculation into guinea-pigs. Such observations cannot be disregarded.

With reference to the toxins, there must be a tuberculous lesion somewhere in the body that produces the toxins. This portion of the subject, however, is still in a theoretical stage.

DR. ELLIOTT: I would like to ask Dr. Johnson or Dr. Gilchrist if they can explain why it is that these tuberculides are so extremely rare, in spite of the fact that tuberculosis is such a common disease? It seems to me that this theory has been taken up all of a sudden without careful consideration. We have just as much right to consider gonorrhea in the family history as an etiological explanation of many doubtful conditions, as tuberculosis. That disease may and does affect any organ of the body, and certainly its frequency cannot be disputed.

DR. STELWAGON: Reasoning from Dr. Elliot's standpoint, we might as well say that lupus vulgaris is comparatively rare in this country in comparison with pulmonary tuberculosis; there is probably not one case of lupus vulgaris to many thousands of cases of consumption. If we admit that lupus vulgaris is tubercular, I see no reason why these other rarer diseases should be shut out because of their rarity.

DR. MONTGOMERY: I have had much experience with lupus erythematosus, and have never yet seen the lesions occur in a tuberculous subject.

DR. ROBINSON: Dr. Stelwagon misunderstood Dr. Elliot. Lupus vulgaris is a local disease. The tuberculides, to which Dr. Johnston referred, are supposed to be due to the toxins of distant tubercle bacilli. The same theory has been advanced in regard to lupus erythematosus. If that is so, Dr. Elliot asked why we do not see these conditions oftener, in view of the fact that there are so many cases of tuberculosis where the system is loaded with toxins.

Out of the thousands of injections of Koch's tuberculin, as far as I am aware, not a single case of lupus erythematosus was produced. The injections of the toxin may give rise to some kind of necrosis, but not the process occurring in lupus erythematosus.

DR. POLLITZER: I would like to emphasize an essential difference between these conditions. Lichen scrofulosum is admittedly a tubercular disease, in which the presence of tubercle bacilli in the follicles has been demonstrated, while in the other so-called para-tuberculides there are no tubercle bacilli localized in the lesions, nor in the majority of cases elsewhere in the system.

DR. JOHNSTON: I would like to repeat that in only three cases of lichen scrofulosorum, of the enormous number of cases examined, have the tubercle bacilli been found. Of the inoculation experiments made, only two were successful, and these can be disregarded as there were no control experiments. They are not to be taken into consideration.

GENERAL DISCUSSION

SECOND DAY, WEDNESDAY, MAY 31ST.

The Role of Pus Organisms in Diseases of the Skin.—This discussion was opened by DR. GEORGE T. ELLIOT of New York, who presented a very exhaustive paper, in which he fully reviewed the literature of the subject, and spoke of the difficulties surrounding it. He stated that when pus-germs were first found in the skin, it was thought that an explanation had been discovered for all pustular lesions, to the exclusion of other agents, but the fact has since been positively established that pyogenic organisms are not the sole cause of suppuration.

A distinction must be made between true pus and pseudo-pus. The former is an exudation rich in leucocytes. Pseudo-pus may be leucocytic pus, or it may be leucocytic and yet not pus. The causes of suppuration, so far as we know, are microbic, chemical, and of unknown origin. Many germs have been accused of producing cutaneous suppuration, the most common being the staphylococcus albus and aureus, and the streptococcus. Suppuration is claimed by some to be especially prone to occur after the infectious diseases, renal disease, chronic diseases, exhaustion, and in persons with the tubercular diathesis. All diseased conditions or states which lower the vitality predispose to suppuration. The same is true of all factors which produce injury to the tissues, want of cleanliness, and bad hygienic surroundings. Infection either from without or within may take place. There may be metastatic inoculation. The bacilli may enter the system through the lungs or intestines. Auto-inoculation is also a factor.

The staphylococcus is a bacillus which exists in an inactive state almost everywhere, and becomes active when the resisting power of the skin is diminished by some means or other, or when it gains an entrance to the tissues.

Dr. Elliot then gave a list of a number of skin lesions, pustular in character, with the name of the micro-organism to which they have been ascribed. Among these he mentioned phlegmon, which has been ascribed to streptococcus alone or associated with staphylococcus aureus and albus. Carbuncle is regarded by Unna as being probably due to infection by a streptococcus of a peculiar sort. Impetigo contagiosa has been recognized by various investigators as being due to the staphylococcus albus and aureus; ecthyma has been ascribed both to staphylococcus and streptococcus. Folliculitis of lanugo hairs is said to be due to the staphylococcus; also the ordinary sycosis. The lesions of hydradenitis have been ascribed by some to staphylococcus. Unna denies this. Acne varioformis Unna ascribes to a mixed infection.

In concluding his paper, Dr. Elliot said that this entire subject is still in such an uncertain state that no positive views could be expressed regarding it. It can be said, however, that there are a number of sources of suppuration, and that many factors, both internal and external, play a part in the production of pus. In a large proportion of cutaneous diseases no constant pyogenic germs

¹Will be published.

have been found by various investigators: on the contrary, most contradictory results have been reported, and inoculation experiments have thus far proven unsatisfactory. There is only one positive fact that should be emphasized, namely, that while pyogenic organisms are in general the cause of suppuration, they are not the only cause.

The Bacteriological and Microscopical Examination of Over 300 Vesicular and Pustular Lesions of the Skin, with Some Experimental Observations.—By DR. T. C. GILCHRIST of Baltimore.

This was the title given by Dr. Gilchrist to his remarks as co-referee in the discussion on the subject, "The Rôle of the Pus-Organisms in Skin Diseases." His summary was as follows:

Smears from the lesions were examined in every case.

Since acne vulgaris is by far the commonest of all cutaneous diseases, and its lesions are usually very numerous, it is not impossible to suppose that all the pustular lesions of acne vulgaris almost outnumber all the pustular lesions of all other cutaneous diseases added together. If this fact could be proved, then the bacillus which is the probable cause of the acne pustule is the most frequent pus-producer in all cutaneous diseases.

It is somewhat surprising to find that the streptococcus pyogenes outnumbers the staphylococcus pyogenes aureus and albus as the next in the series of the pus-producers in cutaneous lesions.

Another fact which is brought forward by these investigations is that the majority of vesicular lesions of the skin are sterile, showing that other substances or micro-organisms which cannot be cultivated at present are the cause of these lesions. Other pus-producers which are to be added to those just mentioned are: *Tinea megalosporon ectothrix* and *endothrix*, *blastomyces*, protozoa and tubercle bacilli.

DR. HYDE: I will merely say that the diffidence expressed by the first reader with reference to the results of his work is complimentary to him. We are conscious of the fact that there is a large field yet to be investigated with reference to the question under discussion, and if Dr. Elliot had assumed, in writing his paper, that we knew all about it, he would not have done his work as well as he did.

We have on our list of diseases, 140 dermatoses. I think these disorders might well be divided into three classes. The first class would include the diseases in which we have almost invariably the production of pus. In the second class we can place the disorders in which there is frequently, but not invariably, pus production. The third class would include those in which pus is produced very rarely.

In the first class, looking over the list, I recognize about ten disorders. These, as was very well shown by the reader of the paper, include such maladies as impetigo and furunculosis. The second class includes about twelve disorders, such as *tinea trichophytosis*, which are often accompanied by suppuration. There are about six disorders which very rarely are accompanied by the production of pus. If one takes these figures and adds them together, the proportion of pus-producing disorders as compared with the entire list of skin-diseases is found to be about one to fourteen; but when we consider the frequency of cases, this proportion is changed. I am rather surprised to learn that out of every five cases of skin-disease which we are called upon to treat, four are at all times likely to be free from the exhibition of pustular lesions, exception being made of those

Name of the Disease.	Lesion from Which the Culture Was Taken.	Number of Cases or Lesions.	Micro-organisms Obtained in the Cultures.	Remarks.
Impetigo Contagiosa.	Pustules and from beneath the scabs.	17 cases.	Streptococcus pyogenes in every case. In 10 cases pure cultures. In 6 cases the staphylococcus pyogenes aureus or albus, or both, were also present. In one case the pseudo diphtheria bacillus was mixed with the streptococcus.	Three of the cases were severe from which the pure culture of the streptococcus was obtained. The disease was reproduced once by inoculating a pure culture of the streptococcus and the same micro-organism was obtained in pure culture from the impetiginous lesion. Mice were killed in 7 to 10 days with the pure culture.
Ecthyma.	Beneath the scabs.	2 cases (4 cultures).	Pure cultures of the streptococcus pyogenes from a single lesion, in both cases the <i>s. pyogenes aureus</i> was mixed with the other cultures.	Not severe cases.
Impetigo Vulgaris.	Pustules.	16 cases.	Streptococcus pyogenes pure in 2 cases. In 7 cases <i>s. pyogenes aureus</i> pure. In 1 case <i>s. aureus</i> and albus. In 1 case the same but with the citreus added.	
Tinea Sycosis.	Pus from a lesion.	1 case.	1 culture pure of the fungus. 1 culture fungus and <i>s. aureus</i> . Fungus was tinea megalosporon ectothrix.	Reproduced a pustular disease on a man's arm by inoculating a pure culture of the fungus; a pure culture of the same fungus obtained from the pustules; disease reproduced again on another man's arm by inoculating with culture from last case; a pure culture of the ectothrix was again obtained. The pustules were free of any diplococci.
Pustular lesions on scalp due to tinea megalosporon ectothrix.	Small discrete pustules.	2 cases.	Pure culture of the ectothrix.	No diplococci in the smears.
Tinea Circinata.	Pustules at edge of patch on wrist.	1 case.	Pure culture of the tinea megalosporon ectothrix.	Reproduced a pustular disease in two men and obtained pure culture of the fungus in both cases from the pustules.
Furunculosis.	Pus from the furuncle.	20 cases.	The staphylococcus pyogenes aureus in pure culture in every case.	Some of the lesions were just commencing.
Scabies.	Pustules.	7 cases.	In 4 cases streptococcus pyogenes pure, 2 cases the streptococcus and staphylococcus aureus. 1 case the staphylococcus aureus pure. 1 case sterile due to faulty technique.	

Name of the Disease.	Lesion from Which the Culture Was Taken.	Number of Cases.	Micro-organisms Obtained in the Cultures.	Remarks.
Scabies.	Vesicles.	2 cases.	1 case <i>s. pyogenes albus</i> . 1 case ditto with the aureus.	
Superficial Whitlow.	Large bullous lesions containing serous.	3 cases.	1 case streptococcus pyogenes and <i>s. epidermii albus</i> ; 1 case streptococcus and <i>s. pyogenes aureus</i> ; 1 case <i>s. pyogenes aureus</i> and <i>albus</i> .	
Pediculosis Capitis.	Scab.	1 case.	Streptococcus pyogenes, <i>s. pyogenes aureus</i> and <i>albus</i> .	Numerous scabs on the scalp.
Pediculosis Corporis.	Pustules and scabs.	3 cases.	2 cases staphylococcus pyogenes <i>albus</i> ; 1 case streptococcus pyogenes and <i>s. pyogenes albus</i> .	
Syphilis. Non-parasitic.	Pustules and basal pores.	3 cases.	Staphylococcus pyogenes aureus in pure culture in all cases.	The lesions were situated on the upper lip in every case.
Lupoid Syphilis.	Pustula and hair.	1 case.	3 cultures gave the staphylococcus pyogenes aureus.	Typical case in a man.
Sebaceous Cyst.	Contents of cyst.	2 cases.	Sterile.	
Syphilis.	Pustules.	9 lesions, 6 cases.	6 1 case streptococcus pyogenes pure; 1 case small pustular syphilides chiefly on the extremities and <i>s. pyogenes albus</i> ; 1 case <i>s. pyogenes aureus</i> and <i>albus</i> .	
	Pus.		1 case <i>s. pyogenes aureus</i> and <i>albus</i> . 1 case (rupia) <i>s. pyogenes aureus</i> . 1 case (gumma) sterile.	Severe rupial variety. Gumma one week old on forearm of old syphilitic case; pus exuded on incision.
Potassium Iodid eruption.	Tubercle. Pustules.	2 cases.	1 case sterile 1 case <i>s. pyogenes albus</i> ; 1 case sterile.	
Lesions produced by local application of carbolic acid.	Vesicle.	1 case.	Sterile.	
Croton Oil.	Pustule.	1 case.	Sterile.	
Corrosive Sublimate.	Pustule.	1 case.	Sterile.	
Herpes Zoster.	Vesicles.	10 cases.	9 cases sterile; 1 case 4 small colonies of bacilli.	
Dermatitis Venenata.	Vesicle.	10 cases.	All sterile.	
Perino.	Pustule.	1 case.	Sterile.	
Tuberculosis Cutis.	Bullæ. Ulcerative lesions.	4 cases. 1 case.	Sterile. Pus sterile.	On the fingers.

Name of the Disease.	Lesion from Which the Culture Was Taken.	Number of Cases or Lesions.	Micro-organisms Obtained in the Cultures.	Remarks.
Tuberculosis Cutis		1 case.	Streptococcus pyogenes, s. pyogenes aureus and albus; sterile.	Lesion on nose.
Erythema Multiforme.	Vesicles and bullae.	3 cases.	Sterile.	
Herpes Iris.	Vesicles.	2 cases.	Sterile.	Face, neck, and hands.
Pemphigus Pruriginosus.	Vesicle.	1 case.	Sterile.	
Blasomycotic Dermatitis.	Pus from between the verrucous lesions.	1 case.	Pure growth of blastomycetes.	Case reported by Gilchrist and Stokes.
Protozoic Dermatitis.	Pus.	1 case.	Sterile.	Case reported by Rixford and Gilchrist.
Eczema.	Vesicles, pustules, and weeping surfaces.	28 lesions in 19 cases.	5 vesicular lesions, 4 sterile and 1 gave s. epidermis albus. 13 eczema multiforme, 5 gave the s. pyogenes aureus; 4 gave the s. pyogenes albus; 2 sterile. 10 eczema pustules, 2 gave the s. pyogenes aureus; 4 gave the s. pyogenes epidermis albus; 2 gave the s. pyogenes aureus and albus; 1 sterile (faulty technique).	
Acne Vulgaris.	Pustules.	97 lesions (53 cases).	51 cultures were sterile on slant agar; 31 cultures gave from one to many colonies of the epidermis albus; 9 cultures gave pure growths of a bacillus on glycerin agar.	All the smears from the pus showed the bacilli. This bacillus grows slowly, "en masse," on glycerin agar. The colony at first is creamy white then later turns pinkish, grows in glucose agar but no gas formation; grows in bouillon, invisibly as potato, grows fairly well on blood-serum, but not in Dunham's solution, or milk. Does not decolorize with Gram's stain, is motile and branches.

cases in which we find, microscopically, small pustules in the tissues. If these figures are correct, it shows that one of the questions propounded to us may be answered: "The rôle of the pus-organisms is not the most important in the list of skin-diseases we are called upon to treat.

Both of the speakers, one in particular, have brought to my mind a suggestion which may help us to form some conclusions respecting the importance in this connection of pus-organisms. I was interested in what Dr. Gilchrist said with reference to the pustular lesions in syphilis. Now, in the small pustular syphiloderm we have a dermatosis so characteristic, when typically developed, that almost any expert, even at a distance of several feet, can make an accurate diagnosis of its presence. This pus, Dr. Gilchrist has shown, is not pseudo-pus, but a true pus, in which pus-organisms are present. This pus, with its micro-organisms, cannot be distinguished. I take it, from that obtained from other lesions, providing they contain micro-organisms. Here then we have a demonstration of the essential part which the pus-organism plays. The same morbid state exists in both conditions, and yet in syphilis some superior power so modifies the lesion that we get a picture which the clinician can recognize at a distance. The rôle of the pus-organisms is then less important than the general condition which results from infection of the system by the syphilitic virus.

I wish to say in conclusion that I thank the gentlemen for their conscientious work, which forms a valuable addition to our knowledge of this subject.

DR. KLOTZ: As one who is only allowed, by circumstances, to follow the practical and clinical side of dermatology, I wish to express my admiration for the work done by Drs. Elliot and Gilchrist in connection with this subject, and the sense of indebtedness which I feel. The papers should form a valuable basis for our therapeutic action, particularly in connection with those diseases in which different bacilli or cocci are present. I have thus far been under the impression that the pus-formation is most easily prevented or eliminated in those cases where the pus-organisms play a secondary or incidental part. For example, it is comparatively easy, by antiseptic measures, to eliminate suppuration from eczema, but in those cases where the micrococci are the principal and primary cause it is more difficult.

I also feel confident that investigations like the present ones will in time enable us to dispense with a large number of separate names of diseases of the skin.

DR. ROBINSON: I have no intention whatever of discussing these papers, which I could not do anyway. I wish to congratulate this Association on the results of this meeting, and to congratulate Council, which, although I am a member of it, may in this instance be regarded as a predisposing cause, the grounds and cultures having already been there. It was a case of pure culture.

DR. BULKLEY: I have no intention of discussing the bacteriological side of this question, but I feel grateful to the readers of these papers for the information they have presented, which we could not, perhaps, get in any other way.

I was exceedingly interested in Dr. Elliot's remarks, in which he recognized so strongly the predisposing factors for the production and growth of the various bacterial organisms of the skin. That, as you know, agrees with my inclinations, and my thoughts on this question have long been directed in that channel, namely, the preparation of the soil. I am strongly inclined to believe that these micro-organisms are everywhere present. Those of acne, for example, have been found present in every pustule every time.

For many years a disease called the yellows has attacked the leaves of peach-trees, first killing the leaves, then the tree ceases to bear fruit, and finally, after

a few years, the tree itself dies. It was considered a great discovery when it was made out that this disease was due to a fungus, and thousands of dollars were spent in spraying the peach-trees. I have a peach-orchard which was attacked by the yellows. Upon studying the subject I discovered that the more recent writers referred to the failing nutrition of the trees, and I then found that by simply feeding the roots of the trees with phosphates, the yellows ceased. The disease disappeared entirely from my peach-orchard.

I have a large pear-tree which was attacked each year by a fungus, destroying the fruit. The tree had always borne very abundant fruit, and I found that by removing a portion of the fruit when the pears were still small the vitality of the tree was so much increased that it was able to resist the fungus growth. Nothing more was necessary.

In another portion of my farm there was a desolate hill which was overgrown with sorrel and wild strawberries not bearing fruit. In the fall my farmer covered a portion of this hill with a quantity of ashes, and the following spring, instead of wild strawberries, the hill was green with clover, although no clover-seed had been sown there. He had simply improved the soil and thus given the clover an opportunity to grow.

I believe these same principles apply to the human system. The kind and virulence of the infection, whatever it may be, depends to a certain degree upon the soil. My contention is that if a person is in proper health and strength, these infections are milder in character and are more readily thrown off. I wish that more of us could go into this bacteriological work, but, on the other hand, we must not allow the local element to overbalance the practical, internal cause.

DR. JOHNSTON: I would simply like to ask two questions. I would like to ask Dr. Elliot if Dr. Hyde has not misunderstood him as to his tentative classification of pus-organisms. As I understood him, there were three. First, those in which the disease has been proven, beyond peradventure, to be due to pus-organisms by culture and inoculation. Second, those in which certain links are missing. Third, those in which this is a mere conjecture. If my understanding of this is correct, I think it is the best division of the subject that can be made.

I would like to ask Dr. Gilchrist with reference to the kind of bacilli he found in acne. Is it identical with the micro-bacilli described by Sabouraud? It seems to me that as regards its morphologic features, with the exception of the branching and its non-occurrence in the seborrheic plug, that this micro-organism must be practically of the same nature.

DR. SHERWELL: I cannot let these papers pass without expressing a word of admiration for their scientific worth. Still, I have to take up a little bit the burden of my friend, Dr. Bulkley, and I believe that to a certain extent all these pus-organisms act differently in different individuals. I certainly believe in diathetic and predisposing causes: therefore, in the different effect of the pus-organisms—in fact, of any of the lower organisms in different human tissues or in tissues in different states. I think this factor enters into the etiology of the lesions produced, and also into the therapeutic effects that may be produced upon them.

DR. CORLETT: I wish to express my appreciation and admiration for these carefully prepared articles. I think we are greatly indebted to both of these gentlemen, and I shall anticipate with pleasure the publication of the papers, so that we can have them at hand for reference.

DR. ALLEN: I think we have all been edified and instructed by the excellent résumé of this subject. The first paper showed us in what a chaotic state the

whole question seemed to be, so far as could be gleaned from the literature, and if we had been dismissed with that alone, we would have thought the subject hardly worth bothering about any further. One point, however, was brought out in the first paper which is of very great importance, namely, that there are other agencies besides the recognized pus-organisms which are capable of producing pus-lesions.

The second paper came in most opportunely to cheer us up. It showed us what a little personal investigation can accomplish toward refuting or confirming statements which conflict, and several of the questions have been so treated that we now have something definite to go by. That other agencies besides the pus-organisms are capable of producing pus-lesions. This is a decided advance in our knowledge of this subject, and the question can be regarded as settled without further investigation. The other questions we are encouraged to go on and investigate.

I am inclined to agree with Dr. Bulkley that there is an underlying condition which is a very important one in the production of pus-lesions, as well as in other infectious conditions, such as trichophytosis and favus. I am continually seeing the good effect of climate, cleanliness, and hygiene in the cure of favus. I have seen cases of favus which persisted for a long time while the patients were living among poor surroundings in Europe improve rapidly in this country, the external treatment possibly remaining very much the same. I also see cases of trichophytosis which prove very difficult to cure unless the hygiene is improved. This is possibly straying a little from the subject under discussion, and I only refer to it because it has already been brought up.

DR. BOWEN: This subject is a very interesting one, and especially difficult because the so-called pyogenic micro-organisms are not always pyogenic. They do not always produce pus. Many other micro-organisms have been shown to possess this quality also.

Dr. Elliot has given us a list of the micro-organisms which may produce pus, although many prominent pathologists hold the view that very nearly all of the micro-organisms may, under some circumstances, produce pus. I have the authority of Dr. Councilman for making that statement, although it may not be an absolute one. I was glad to hear Dr. Elliot's paper, which contained an admirable résumé of the literature, put in a fair way, without drawing any special deductions. Dr. Gilchrist's deductions were very interesting, and I hope he will continue the work he has taken up in this field. It certainly requires a large number of these observations to get convincing proof. I was interested in his assertion that the trichophyton tonsurans possessed pyogenic properties. It reminded me of a statement made to me the other day by Dr. C. J. White that he also had proof of the same thing. I was also interested to learn that the staphylococcus aureus alone was found in furunculosis, and that the lesions of dermatitis venenata were found sterile. His statements regarding acne were certainly very interesting. I should suppose that a very large number of observations of this positive character ought to be collected before one can definitely say this is the only, sole cause of pus in acne.

Apart from all these various micro-organisms that we know may produce pus, there are certain forms of skin lesions which, as we frequently see, are caused by pyogenic micrococci. I recognize Unna's impetigo vulgaris, which occurs mostly in children, and the lesions usually contain the staphylococcus aureus: in most of the cases where we have made cultures, we have found that micro-organism. I also recognize Unna's impetigo circinatis. The lesions are found both in

children and adults; the lesions are singularly circinate, and occur in large numbers. The staphylococcus aureus is usually found in these cases.

In conclusion, I simply want to speak of one case where metastatic action of the aureus was demonstrated. The patient was a boy, twelve years old, who came under my observation in 1895. He was suffering from severe pyemia, with deep-seated abscesses of the hands and legs. Scattered over the whole body were pustules the size of a small bean, beginning like impetigo contagiosa as small blles without a hyperemic areola. The temperature was high, and the patient died shortly after I saw him. From the lesions in this case, both deep and superficial, the staphylococcus aureus was cultivated. That was a case of well-marked metastatic infection from the aureus.

DR. WHITE: I would like to say that I do not quite understand the conclusions of the last reader with regard to the majority of pustular lesions on the skin, as represented by acne. I think he said that acne produced more affections of the skin, more lesions, than any other disease. If he will limit that remark to the face, as exposed to public view, I will agree with him, but if he says that acne is the most common disease of the skin, and therefore the cause of more cutaneous lesions of the skin, I should take positive issue with him.

In regard to the circinate form of impetigo, to which Dr. Bowen referred, I regard that as the adult phase of impetigo contagiosa. It is rare in young children—as rare as impetigo contagiosa is in adults. It is, however, the common, usual impression of the staphylococcus upon adult skins, and it is a well-marked type of disease produced by the staphylococcus.

My chief object in rising was to offer a vote of sincere thanks on the part of the Association to the gentlemen who spent so much time in preparing these papers for our benefit. It seems to me that the paper of the first reader is a most admirable résumé of what has been contributed by other workers in this field, based on excellent, critical judgment. I am sure it will be of great service to us. We are also indebted to the reader of the second paper for the admirable work which he has done, and for carrying on investigations which have hitherto been so exclusively made in Europe. I think that both the papers are a great credit to the readers and to the Association, and I move that a vote of thanks be extended to Drs. Elliot and Gilchrist for their carefully prepared and valuable contributions.

[Unanimously carried.]

DR. ALLEN: Dr. Gilchrist, in his paper, mentioned an equal number of cases of impetigo contagiosa and impetigo vulgaris. Does he mean by the latter the impetigo simplex of Dühring?

DR. GILCHRIST: Yes.

DR. ALLEN: Impetigo simplex is very rare in my experience, and impetigo contagiosa is very common.

DR. ELLIOT: I have nothing to say excepting to thank the gentlemen for the kindly way in which they have accepted the effort presented to them.

In reply to Dr. Johnston I would say that I had no intention of making a classification, nor do I feel that that is possible: I simply stated that suppuration may be due to a pus-organism or to something else.

DR. GILCHRIST: I wish to indorse Dr. Elliot's remarks, and am thankful that the members of the Association listened so patiently to our efforts.

I fully agree with what Dr. Bulkley and the other speakers said regarding the importance of the soil. It is well known that in tuberculosis it is the soil that is at fault. It is called tuberculosis because it is practically due to the growth

of the tubercle bacilli, but it is the soil that is at fault. In all diseases, the predisposing factors are very important.

With reference to eczema it seemed to me that some of the lesions were due to these pus-organisms, and that perhaps we might get better results by more energetic anti-septic treatment. In scabies, not only the acarus, but also the streptococci and staphylococci, which appear to be so universally present, must be dealt with. In acne the bacillus was present in every lesion, pure cultures being obtained when suitable media were used. I have not yet proven that this bacillus is pyogenic. We must, of course, have a favorable soil. This bacillus causes the lesions, but the predisposing causes are exceedingly important.

In reply to Dr. Bowen I would say that in eleven cases of dermatitis venenata the lesions were in every instance sterile. In reply to Dr. White I would say that while the number of pustular lesions in acne did not outnumber those of all other skin-diseases taken together, it certainly outnumbered those produced by any other pustular disease.

Demonstration of Ringworm and Favus Cultures—By DR. S. POLLITZER.

Dr. Pollitzer presented a series of cultures of microsporon and of the large-spored trichophytons on different media and at different stages of development. One set of these cultures represented original growths made in the research laboratory of the Health Department of New York, while another set represented growths obtained from originals sent to the speaker by Dr. Sabouraud of Paris. On comparing cultures from these two sources differences appeared in the megalospora, but the microsporon grown in New York seemed to be absolutely identical with that obtained from Paris. The cultures of favus made in New York also appeared to differ in no essential from those sent by Sabouraud.

DR. FORDYCE: We are all very much indebted to Dr. Pollitzer for his demonstration of these instructive and beautiful cultures.

DR. GILCHRIST: I have frequently observed that the cultures of pus-organisms vary with the soil on which they are grown, the same as they do in the human being.

DR. POLLITZER: The variation of these micro-organisms with the media frequently leads to error and discouragement. Two media, made at different times of apparently the same material, may yield entirely different cultures. Of course, the first suspicion is that one is dealing with a contamination, but it occurs so frequently that there is no explanation possible except the one given, namely, that the variations are due to differences in the media so slight as to escape detection.

The purple trichophyton with the black center which I showed corresponds, I believe, with one found by Mibelli in Parma and observed once by Dr. J. C. White of Boston. It was obtained several times in our cultures from cases that presented nothing peculiar clinically.

Here is a specimen made on December 22, 1898, in which the medium has entirely dried up. On the fifth of this month I made this culture from it, and it has grown very well. This illustrates the survival of these organisms under conditions which one would suppose would lead to their death. Sabouraud speaks of the death of the growth after three or four weeks. I have obtained growths of these organisms six months after their supposed death.

DR. FORDYCE: Have you ever made any experiments on dry specimens?

DR. POLLITZER: No.

DR. GILCHRIST: I have kept cultures over twelve months and they grew again without any trouble.

DR. POLLITZER: I have no doubt that growths may be obtained from scales that have been simply dried and otherwise protected from injury after a practically unlimited period.

Exposure to formalin vapor is the best way I know of to preserve a culture at a given stage of growth. It will then remain unchanged for at least many months.

A Contribution to the Study of Blastomycetic Dermatitis.—Dr. J. NEVINS HYDE of Chicago read a paper on this subject. He reported the case of a man, 57 years old, a native of Holland, who, after serving as a soldier in India returned to his native country in consequence of some illness which he had contracted while abroad. Subsequently, he came to this country.

The patient first came under Dr. Hyde's observation last autumn. He stated that five years previously he had what he called a "pimple" on one of his legs, which gradually developed into an ulcer, spreading over the anterior surface of the limb from the knee to the ankle. He was treated for this in one of the homœopathic hospitals in Chicago, and subsequently had some surgical operation performed (perhaps only a dressing), which was followed by cicatrization of most of the lesion, and later on it healed entirely.

About two years before Dr. Hyde saw him a lesion appeared on the dorsal surface of the left hand, which resembled the one he had previously had on the lower extremity. It extended well down to the borders of the nails, and a little beyond the line of the wrist. This area was the seat of a verruciform development, distinctly outlined, and surrounded by a halo. The subjective sensations were practically negative. There was a very slight secretion from the surface. The resemblance of the patch to a case of tuberculosis verrucosa was so striking that clinically it could not be distinguished from that affection. A piece of the lesion was excised and sent to the laboratory, and the pathologist reported that the case was one of blastomycetic dermatitis.

Acting upon the suggestion of Dr. Bevan of Chicago, who had noted the influence of potassium iodid upon certain granuloma, the patient was placed upon this drug, and under its influence there was a rapid and marvelous improvement, although there was no suspicion of syphilis about the case and never had been. The improvement under the use of the potassium iodid, however, was not permanent, and, after several relapses had occurred, Dr. Bevan resorted to curetting and the application of skin-grafts.

In connection with this case, Dr. Hyde presented some stereopticon views of the gross lesions and microscopical findings in blastomycetic dermatitis. He also referred to the case of Dr. Gilchrist, which was reported in 1894; also the cases reported by Wells and Helser. In all seven cases of this apparently rare affection are on record, in which the organism has been recognized and studied with scientific accuracy. Six of them are instances of involvement of the skin, without extension to any other organ. Five of the patients were men; two women, all about middle-life. In most of the cases the disease pursued a chronic course, lasting from five to ten years. It usually began as a maculo-papule, reddish in color, which afterwards suppurated, probably resulting from accidental infection. The ear, forehead, cheek, brow, lids, neck, thigh, scrotum, and wrist have been respectively involved in the various cases. The region of the primary infection is usually the dorsum of the hand or the anterior thigh. The hand was

involved in four of the cases. The disease has never invaded the palm in the cases thus far on record.

DR. GILCHRIST: I have listened with much interest to this paper, particularly so as I have been fortunate enough to examine two cases of the same character. The stereopticon views which Dr. Hyde showed in connection with the subject of his paper were excellent. The similarity of this condition clinically to tuberculosis is very striking, and in some instances this causes considerable doubt as to the true diagnosis. I have seen cultures from Hessler's case: I do not think he demonstrated the presence of the organisms in the pus, and he could not get them in the tissues, but he got a pure culture of a growth which, to my mind, was not similar to these bodies. The organisms were much smaller, more like bacilli, and could not be compared with those found in a case reported at the Johns Hopkins Hospital by Dr. Schenck. In that case the organisms produced small, subcutaneous abscesses extending up the arm. The case did not imitate tuberculosis either clinically or histologically. Of the two other cases reported by me, the first was described clinically by Dr. Duhring, as a case of chronic scrofuloderma, the other I regarded at first as *lupus vulgaris*, but the pathological examination disclosed these bodies. I think this forms a very important group of diseases on account of the cancer-parasite question, which is looming up all the time. There are no mycelia in the body lesions. We get them, however, in the growth. The pigmented bodies shown by Dr. Hyde I have never before observed. I did not find them in my specimens. They may possibly have something to do with the potato media on which they grew.

With reference to the bacilli, the pseudo-diphtheritic bacilli, they are apparently saprophytes and have nothing to do with the blastomycetic dermatitis. I found a similar organism in *impetigo contagiosa*, and there regarded it as a saprophyte.

With reference to this cancer parasite: In Italy several observers have done work along this line, and have regarded the parasite as belonging to the blastomyces group. I received microscopic specimens from one of the cases of Sanfelice in Italy and showed them to Dr. Welch, who regarded the parasite merely as masses of calcareous matter in the kidney; the view that they were parasites he could not accept at all. I think the weakness of the parasitic theory of cancer is shown in one fact that we have now seven cases of blastomycetic dermatitis recorded and the lesions bear no similarity to carcinoma. According to my observations, these so-called parasites are not present in every case of carcinoma, and that they may be present in other cutaneous diseases.

DR. FORDYCE: I am sure we are all very much pleased with Dr. Hyde's excellent paper. I wish to refer to two cases which I think may prove to be examples of this affection. One is a girl, 25 years old, who was admitted to the City Hospital a number of years ago for an ulcerating trouble of the scalp. She was treated by a colleague on the supposition that her affection was syphilitic, but this diagnosis was soon abandoned, and it was then thought that the case was one of *lupus* of the scalp. This idea was also abandoned, and no positive diagnosis was ever made. The trouble has involved the entire scalp, extending peripherally, with an elevated margin, and characterized by superficial ulceration. It resulted in a complete loss of hair, and left a superficial, white scar which extended down on the forehead. I regret exceedingly that sections were not examined from this case and cultures made, because I feel quite convinced now that it was a case of blastomycetic dermatitis. If not, I do not know what it was. It was certainly neither syphilis nor *lupus*.

I have at present under my care a lady, about forty years old, who, for the

past fifteen years has had a superficial ulceration at the bend of the elbow, about two and one-half inches in diameter. The ulceration is superficial, with a sharply defined margin. Some months ago I diagnosticated the case as one of lupus, but a microscopical examination failed to reveal the presence of giant cells. I curetted the lesion and applied pyrogallol, but one prominent ridge entirely failed to heal. This was excised recently and on the day previously to my departure from New York I looked at some of the specimens, and made out some epithelial proliferation, together with miliary abscesses. I have not yet had time to complete the histological examination.

DR. HARTZELL: I would like to speak of the close resemblance of the lesion on the hand in Dr. Hyde's case, and that shown by Dr. Duhring, which Dr. Gilchrist referred to and examined. I saw a photograph of that case a few days ago, and the resemblance between the two cases is very close indeed. There is the same curious warty condition, studded with papillomatous outgrowths which are separated by considerable intervals.

DR. STELWAGON: I was struck by the marked resemblance of these pictures to several cases of the verrucous type of cutaneous tuberculosis I have seen. Probably in the future it will be necessary in some cases to differentiate this disease from blastomycetic dermatitis by histological examinations and culture experiments. I have a case now under observation which I hope to show tomorrow, in which the diagnosis is in doubt as between these two diseases. No microscopic examination has yet been made. The picture of Dr. Gilchrist's reported case of blastomycetic dermatitis certainly gives the impression, clinically, of lupus vulgaris.

DR. WHITE: I would like to ask if in Dr. Hyde's case a searching examination was made in order to exclude the possibility of the presence of tubercle bacilli? I also wish to inquire why this affection is called a blastomycetic dermatitis? Why should the term dermatitis be used any more in that connection than it would be in syphilitic or leprous or tuberculous changes of the skin of this nature? How does the term dermatitis come in, who is responsible for it, and why should it be continued? The clinical manifestations of the disease, it seems to me, would bar the name dermatitis. I also wish to ask to what extent examinations for these bodies have been made in cases of true tuberculosis, where the tubercle bacilli were found.

DR. POLLITZER: With reference to the etiology of cancer, I would like to say that the fact that the disease under discussion is due to the presence of blastomyces does not disprove the theory that cancer may also be due to these bodies. There are many forms of blastomyces. Organisms so closely related as ectothrix and endothrix may produce such dissimilar lesions as ringworm of the head and superficial ringworm of the body, affections which clinically we would not regard as belonging to the same category. On the same grounds, different blastomyces might produce entirely different lesions.

DR. CORLETT: I feel greatly indebted to Drs. Gilchrist and Hyde for presenting such a subject so clearly, and I agree with Dr. Stelwagon that many cases heretofore diagnosed as tuberculosis will doubtless prove to be the disease which has been so ably considered. When I received Dr. Gilchrist's reprint on this subject, I was struck by the similarity of his description to a case which I have had under observation for over a year. I have not yet, however, had the case examined histologically, but shall do so upon my return home. My patient is a man, about sixty years old, with a lesion which first occurred on the nose,

gradually extending and leaving a scar, and now it has reached the inner canthus of one eye and is pulling the eyelid downwards.

I had the pleasure of seeing the case in Indianapolis to which Dr. Hyde referred. It did not impress me at all clinically like the one photographed by Dr. Gilchrist. I believe that in the Indianapolis case the lesion has since healed.

DR. BOWEN: I think that the greatest care should be taken to exclude tuberculosis in these cases. I do not mean to question the diagnosis in the cases presented by Dr. Hyde, but the great similarity of the disease to tuberculosis should be borne in mind. Here we have an entirely new disease, which we know very little about, which bears an extraordinary resemblance to tuberculosis both clinically and histologically. That disease should be thoroughly excluded, and a very careful search for bacilli instituted. The possibility of the blastomyces being engrafted on a preëxisting tuberculosis should be borne in mind.

DR. HYDE (closing the discussion): I can answer Dr. White's questions, at the same time referring to the remark made by Dr. Stelwagon. In this paper I have stated very distinctly that one is tempted to believe that many of the cases which have been regarded as tuberculosis verrucosa in the past were really examples of blastomycetic dermatitis, and in order to assure on this point, I have, since reading the suggestive paper of Dr. Gilchrist on this subject, examined a series of cases of tuberculosis verrucosa with the idea of discovering the blastomyces, and although the symptoms presented were strongly suggestive of that affection, in not a single instance was the blastomyces discovered. I am convinced that our old tuberculosis verrucosa will stand, and that the same is true of lupus.

I agree that it is exceedingly important, as a number of the speakers have indicated, to distinguish with the utmost exactness between this affection and tuberculosis.

As regards nomenclature: If a man has identified himself prominently with a certain disease, it has been my rule, in reporting cases of that disorder, to adopt the name which he has selected. Dr. Gilchrist is not altogether responsible for this name, and still he is to a large extent. He published one case under the title of pseudo-lupus vulgaris, and then decided to call the affection blastomycetic dermatitis. I do not think that the term dermatitis is the best that could have been selected, but it is now recognized by that name, which was given to it by the men who did early and valuable work in connection with this affection.

Remarks on the Treatment of Scabies.¹—By DR. S. SHERWELL.

DR. ALLEN: I think Dr. Sherwell deserves a great deal of credit for bringing this method of treatment before the medical profession, and I am very glad to add my testimony regarding its efficacy. I do not know that there are so many men using it in New York as Dr. Sherwell might believe: in fact, I do not know of any others beside myself and my assistant. I have used it for two years, during which time I have treated many cases of scabies, and I say without the slightest hesitation that it is vastly superior to any other method that I have ever tried before. So certain am I of its efficacy that if a patient who has received this treatment comes back in three or four days and says that he still itches as much as ever, I say that he has not employed the remedy properly, or there has been a mistake in the diagnosis.

DR. GILCHRIST: I wish to congratulate Dr. Sherwell on his method of treatment. At the Johns Hopkins Hospital Dr. Morison had employed balsam of Peru

in cases of scabies for nine years with excellent results. The balsam is rubbed into the lesions with a soft tooth-brush. I intend, however, to give the sulphur treatment recommended by Dr. Sherwell a trial.

DR. KLOTZ: I think if some members of the New York Dermatological Society have hesitated to adopt this treatment, it is perhaps because it seems almost too good to be true that such a simple method should effect a positive cure in a disease which is often so rebellious. In the hospital cases we would naturally prefer to adopt a rapid method of cure with which we have had experience. In private practice, these cases are not very frequent. I have tried the sulphur, but the patients did not return, and we cannot always take it for granted that such patients were cured.

DR. WHITE: I would like to ask if the application of sulphur gives immediate relief to these patients? In Boston we have for many years used the balsam of Peru, either plain or mixed with sulphur or naphthalin, and the patients are usually cured within three days. The itching is usually relieved within an hour after the first application is made, and the patient enjoys absolute quiet from this distressing symptom.

DR. ELLIOT: For some fifteen years, at the Skin and Cancer Hospital, we have been using a mixture of styrax and sulphur in the treatment of scabies, and in absolute contradiction to what Dr. Allen has said, the sulphur, in almost every case, has produced an artificial dermatitis. I do not understand how a case like the one he referred to could have been confounded with one of Hebra's prurigo.

I think it is far preferable to use something else than sulphur in the treatment of scabies. I have seen many patients during the past ten years who got rid of their scabies by the use of sulphur ointment, but the artificial dermatitis produced was worse than the itch.

DR. ALLEN: I am not conscious of having said anything about a dermatitis in my remarks on this subject, nor about sulphur ointment. I was speaking on Dr. Sherwell's paper, which deals with dry sulphur, having nothing to do with an ointment, and I am not conscious of having said a word about any dermatitis.

As to the application of balsam of Peru, I have used it very largely, and if Dr. Gilchrist can apply this remedy in full strength on the skin of a child who is covered with the scratch-marks of scabies without producing much pain, and more severe subjective symptoms than the patient had before, he is doing something I cannot do.

DR. ELLIOT: I think Dr. Allen must have mis-understood me. It does not make any difference whether he used the sulphur ointment or the dry sulphur is used.

DR. SHERWELL: In reply to Dr. White's question I would say that I do not know absolutely if the relief from the itching has been immediate; it is certainly very prompt. The precipitated sulphur contains more sulphuric acid than the sublimed sulphur, and is therefore more irritating.

Balsam of Peru, to which Dr. Gilchrist referred, has been used for this purpose since the symptom of itching was noted.

DR. GILCHRIST: I said that Dr. Morison introduced the treatment, and that it had been used ever since. We have used it extensively without any bad effects.

A Contribution to the Histo-Pathology of Epidermolysis Bullosa.—

DR. GEORGE T. ELLIOT read a paper on this subject. The case upon which these pathological investigations were based was a typical one of epidermolysis bullosa, which had been presented on several occasions by Dr. Elliot at meetings of the

New York Dermatological Society. The patient was a man, who, at the time of his admission to the New York Skin and Cancer Hospital, was 23 years of age. The disease had existed from his birth. There was no hereditary history; no similar case among his antecedents on either side.

Dr. Elliot said he regarded epidermolysis bullosa not as a disease, but as a congenital condition. The individual is born with a physiological condition of the skin which responds to the slightest irritation. As a result of this constant irritation, the rete is continually bathed in serum, its upper layers lifted, and bullæ are formed. There is a granular condition of the lower rete cells which readily permits their separation by exudation.

DR. FORDYCE: I certainly cannot add anything to Dr. Elliot's very elaborate and lucid description of these lesions and the condition of the skin. I think he is to be congratulated on finding out the condition which precedes the development of the bullæ in this interesting and mysterious affection. The granular degeneration, or whatever it may be, is certainly present, and it looks as if it were the cause of the development of the bullæ. There seems to be some hereditary weakness which underlies the development of these lesions.

DR. GILCHRIST: I have listened with much interest to this paper. The observation it contains is not only a new one, but quite a remarkable one. That this condition is found in normal skin as we get it in epidermolysis bullosa I have had reason to confirm. I had a case of epidermolysis bullosa about three years ago. The patient had had it all her life, although there was no hereditary history. The lesions were more marked in summer than in winter. In her case she was able to demonstrate that she could produce these lesions at any time by a tight garter or anything of that kind. By tying a knot in her garter a distinct bulla would appear within two hours at the site of the constriction. Those lesions were too large to excise, but I took smears from them. Nothing was made out from the smear. I was able to help her to some degree with treatment, but she went West and I lost sight of her.

Since then, at the Johns Hopkins Dispensary, we have had two cases, mother and son. In these cases the hereditary history dated back to the grandfather. The lesions were particularly numerous on the extremities, and both of the patients were able to produce the lesions artificially by friction. About this time I paid a visit to the New York Dermatological Society, and Dr. Elliot showed me his sections of this subject. Then I took portions of the normal skin from the mother and reproduced bullæ, which I excised and examined. The changes in the normal skin were not so marked as in Dr. Elliot's case, but they were there, and there was a remarkable condition of the basic layer of the epidermis. My observations practically coincide with his, although in my case they were not so marked.

Dr. Elliot sent me his sections and I showed them to Dr. Welch. The condition was quite new to him; he considered it a remarkable one, and I think he made the observation that he considered it as an unstable condition in the basic layer of the skin. The condition underlying it is no doubt an embryonic one. The patient is practically born with a basal layer of the epidermis which is in poor condition, and upon slight friction, bullæ are formed beneath it.

DR. POLLITZER: I was fortunate enough to see some of Dr. Elliot's sections two years ago, and I can confirm what he has said regarding the histology of this condition. It is certainly a most remarkable condition, as far as I know absolutely unique. I cannot refrain, however, from entering a vigorous protest against the views which the reader of the paper seems to entertain on the subject

of the development and regeneration of the epidermis. He finds the basal layer of the *rete* completely destroyed in the bullæ, and thinks that the restoration of the epithelium at these sites overthrows the universally accepted law of development of epithelial cell from epithelial cell alone. It seems to me far more reasonable to assume that the rete is not entirely destroyed, but that here and there single cells or groups of cells are left intact on the floor of the blister and serve as foci for the regeneration of the epithelial layer. They may, however, be so few in number as to escape observation in any given section. Complete destruction of the epithelial layer will necessarily result in the production of a scar, a condition which only very rarely occurs in epidermolysis bullosa.

In the second place I think the reader of the paper entirely in error in his assumption that the section of skin which he has shown us as representing the normal skin of his patient is really normal. If a moderate amount of irritation of the patient's skin will result in the production of a distinct bulla in the course of ten or fifteen minutes, then surely the irritation inseparable from the injection of cocaine, and the operation of excision, however dexterously and speedily performed, will suffice to initiate the process of epidermolysis. The reader's sections of normal skin show very beautifully an early stage of the process, but cannot for a moment be regarded as representing the normal state of the patient's skin. If it were possible to examine this man's skin under the microscope without cutting it out I doubt if we should be able to recognize any changes in the epidermis at all.

DR. BOWEN: I also had the privilege of seeing some of Dr. Elliot's sections, and certainly these pictures recall the microscopical appearances very clearly.

In regard to the derivation of the cells from the basal layer, the possibility has occurred to me that some work which I did some years ago on the epitrichial layer might have a bearing on this subject. I showed then that there was an embryonic layer of cells in the human skin corresponding with the epitrichium in animals, which usually became lost at the sixth month; that the nail was a modified portion of the stratum lucidum, and that the layers above this might be analogous to the epitrichial layer. If this were so, it would not be necessary to assume that the upper layers were derived from the basal cells.

DR. ELLIOT: I only wish to say that if the kind of irritation that is produced by two cuts of the knife and one with a pair of scissors is sufficient to cause changes in the sections of tissue removed in this case, we ought to see it in every piece of skin excised. "Biopsie" has been in use for microscopical specimens for many years, and yet such changes in the cell tissue as I have observed have not been at least recorded. I do not think that Dr. Pollitzer's objections are exactly tenable on the grounds he has given.

DR. POLLITZER: I did not mean to intimate that the cutting out of the sections would produce these changes in the normal skin, but that it started the changes.

DR. ELLIOT: I would also like to say that particularly in Dr. Fordyce's microphotographs it can be seen that there is not an epithelial cell left at the base of the bullæ. I have always been under the impression that you can destroy all the rete without leaving a scar. I think any one who has used electrolysis upon *nævi* above the level of the skin has observed that by confining himself to the region above that level no scar would be produced, but if he went below that level, a scar would result.

Therapeutic Notes.

Vasogenum Spissum.—DR. L. LEISTIKOW (*Monatshft. für prakt. Dermatologic*, p. 323, 1899) gives the results of three-years' study of this agent. While liquid vasogen is well known, vasogenum spissum is almost unknown except as mercurial ointment. The author finds that while in acute skin affections and in chronic affections with violent inflammatory processes this substance is harmful, on the other hand he regards it as a most valuable ointment base in pruriginous, psoriatic form and lichenoid processes, combined with the appropriate remedies.

In prurigo vera he uses it with 10 per cent. liantral (a coal-tar product), with good results.

For pruriginous eczema he uses the following:

R	Vasogen. spiss.	50.0	(5-10 per cent.)
	Solut. calcii chlorat.	50.0	
	Liantral	5—10—20	
M.	ft. ung		

In psoriasis, eczema keratoides manuum, etc., 5 to 10 per cent. chrysarobin with vasogen spissum is used.

Prophylaxis of Gonorrhea.—DR. E. R. W. FRANK (*Allg. Med. Central-Zeitung*, No. 5, 1899) after a series of experiments in which he inoculated the human urethra with gonorrheal pus and pure cultures of the gonococcus just within the lips of the meatus, claims that the instillation of 2 to 3 drops of a 20-per-cent. solution of protargol within the lips of the meatus and over the outside of the meatus and sides of the frenum is a safe and sure method of guarding against infection.

Aristol in Rhus Dermatitis used in the form of the pure powder dusted over the affected area with a camel's-hair brush and lightly rubbed in with the fingers is a specific in this trouble.—[E.D.]



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MULTIPLE BENIGN SARKOID OF THE SKIN.

BY PROFESSOR C. BOECK,

Christiania.

THE skin affection here described is, so far as I am aware, not generally recognized. I have seen two cases in Norway; one in a female many years ago of whose case I have no notes, and the example which forms the subject of this paper. A typical case in a male was presented at the Dermatological Congress in London (1896), but I do not know by whom. A majority of the experienced observers present failed to recognize the condition, so that I am not far wrong in saying that the disease is a rare one.

The only clinical description known to me which bears any resemblance to my case, is given in a recent paper by Jonathan Hutchinson in his "Archives of Surgery," October, 1898. I dare not say that the skin affection there described as "Mortimer's Malady" is identical with my case, since the latter shows some very marked clinical features not found in Mortimer's disease, and since Mr. Hutchinson has had no opportunity to examine his cases histologically. Nevertheless, I am inclined to believe that they are only variant types of the same group of diseases and perhaps, later on, they may be found to represent benign forms of so-called pseudoleucemic affections of the skin. I shall return to this discussion after having given an account of my own case.

The patient, a policeman, was presented first at the University Polyclinic in September, 1894, and the disease was almost in the same condition then as two years later, when he came to me privately. He was then 36 years old, and stated that he had always been in good health, and especially that he had never suffered from any scrofulo-tuberculous affection nor from syphilis. His children were healthy. The skin disease appeared first on the brow, spreading to other parts of the face from there. It made its appearance gradually on the scalp, trunk and limbs.

Present Condition.—The patient looked a little pale, but felt tolerably well, and his functions were normal. On the forehead and temples a number of characteristic spots and patches were visible, although they were of somewhat different appearance, varying with the stage of development they had reached. Their size ranged from that of a small pea to a large bean, and were slightly elevated above the skin surface. At first glance, therefore, one might believe that they were only slightly infiltrated, but when grasped between the fingers they were felt to penetrate deeply and to form well defined nodules and infiltrations. The surface of the smaller efflorescences was of a uniform yellowish-brown color, sometimes slightly scaling. Somewhat larger nodules showed a slight central depression of a bluish-red tint, sharply contrasting with the border. As the growths increased in size and became large, flattened, **irregularly contoured patches**, the depressed centers deepened in color and the border became narrower until it was reduced to one mm. in breadth. The large patches with their apparent atrophy could by palpitation be determined to form well defined, deep infiltrations of the skin. On close inspection a network of dilated capillaries could be seen in the central area; the interpapillary lines and lanugo hairs were also distinct. As remarked before, these patches, with their irregular contour, bluish-red center and yellow border, presented so characteristic an appearance that they can be mistaken for no other known skin disease. Similar areas were found on the radix nasi, in front of the ears, on the cheeks, in the beard, and even in the sub-maxillary region.

On the hairy scalp there were visible everywhere a great many lesions of varying size but not so sharply outlined here as on the face. The infiltration of the skin was also less marked, at all events more difficult to demonstrate. It was only on close inspection that the patches could be made out at all. As in the beard, the growth of hair was in no way interfered with. On the neck, only three small areas could be seen on the right side below the ear, and on the left a single symmetrical spot.



The whole anterior surface of the trunk was entirely free from lesion. Between the axillary lines on the right side two small brownish spots could be detected. On the upper part of the back, to the superior limit of the lumbar region, a great number of disseminate nodules and patches, varying in size from a pea to a bean, were to be seen, which were sometimes elevated above the skin level, sometimes not. (Plate II.) The likeness of these lesions to the nodules of leprosy was quite close. Grasped between the fingers, the more recent were found to be infiltrated, the older not so much so. Lumbar and sacral regions were free, but on the buttocks, again, there were a number of efflorescences of the same color as those on the back.

The eruption was confined to the extensor surfaces of the upper extremities, both forearms and upper arm. They were numreous pin-head size and larger, varying in size from a hempseed to a bean, and showed irregular outlines. It was easier to follow evolution in this situation than anywhere else. The beginning lesion, the nodules, deep-seated in the skin, already hard and dense, were rose-red in color; they became darker later and showed some of yellowish-brown appearance at the periphery. The capillary network mentioned above appeared here also, especially in the center of the eruptive elements. Near the shoulders, very small yellowish lesions appeared, scarcely the size of a pin-head. They were connected with the hair-follicles, were superficial and palpable with difficulty. The hands were free.

The thighs showed no signs of the disease except that on the internal surface of the left extremity and behind, just under the nates, it appeared in the form of groups of numerous, very small bluish or brownish-red flat papules. Here and there they were quite confluent, as in lichen ruber, and slightly scaling as well. These small lesions seemed to be connected with the hair-follicles. On the left thigh just above the patella a dense, hard giant nodule was visible. Over the right patella there was a flattened infiltration of irregular form and blue color, developed partly in and around an old cicatrix of twenty years' standing. It seemed evident that it was the previous lesion which had determined the outbreak in this locality. On the legs, from knee to ankle, there were only a few large, dark brown, atrophic spots resulting from the disappearance of large nodules. On the left calf there were three such areas. On the right leg patches of an oval form occurred on the anterior and inner side of the tibia. The feet, like the hands, were entirely free.

Lymphatic System.—The cubital lymph nodes were enormously swollen and were easily felt in size and shape, like Spanish nuts, along

the inner side of the biceps from the cubitus for half the length of the arm. The axillary glands were tumified, but relatively not to so great an extent. Submaxillary glands were not swollen, and the cervical very little. The femoral nodes were so enlarged as to be visible in the fovea ovalis when the patient stood upright; the inguinal glands were not so increased in size. The spleen was never found enlarged.

The blood, I regret to say, was not so thoroughly studied as it should have been. I can only say that the number of leucocytes was a little greater than normal, especially in the case of the mononuclear cells. The number of eosinophiles was not notably increased. The urine contained no albumen or sugar.

After this description it will hardly be necessary to give *in extenso* the copious notes taken during the two or three years following, when the further development and final recovery occurred. A short summing up will be sufficient.

In October, 1896, administration of arsenic in granules (each containing 1 milligram of arsenic) was begun, and in six weeks the dose was raised to eighteen pills per diem, when a very rapid decrease of the swollen femoral glands was noticed, even by the patient himself, although no effect on the skin eruption could be detected as yet. At this time an obstinate diarrhea, very likely occasioned by the arsenic, had set in, and so the drug had to be stopped and could be resumed only after a lapse of some weeks. Wine of iron and quinine, and in the spring cod-liver oil, were also given with the arsenic.

The last development of a new nodule in the skin occurred in the middle of December, 1896, and in January, 1897, the first evidence of beginning involution was noted. The superficial lichenoid eruption on the inside of the left thigh was rapidly fading. In April of the same year the first of the large patches began to disappear under arsenic, iron, and cod-liver oil very slowly. The large patches on the face underwent retrogression in the period from June to October, the central area growing paler and the yellow margin fading. During this process the declivity from margin to center became perpendicular, and the sharply drawn line so formed was often seen as a minutely denticulated zig-zag. No infiltration of the skin could be felt anywhere, but in many situations involution had left marked loss of substance. Since August, 1897, when the arsenic was stopped, the patient has taken no medicine. On April 7, 1899, I made the following note: The patient looks rather stronger than before, and feels pretty well. On the face the disease has left slightly depressed but sharply defined white cicatrices, which redden with the heat of exertion. The loss of substance on the extremities is marked and deep, the skin being thin and atrophic.



following disappearance of larger lesions; in the case of the smaller it is not so noticeable. On the upper arms the trace may be somewhat hyperemic; on the back, they are yellowish; on the legs, dark brown, pigmented and very atrophic. The cubital glands are very large, though a little reduced in size. They are quite soft. The patient has pursued his occupation during the whole course of the disease. I found him sound and healthy for the last time on July 8, 1899.

Histology.—Two nodules about the size of a pea were excised for examination, one quite recent, the other in a more advanced stage. The pieces were hardened in alcohol and stained by different methods of which the eosin-methylene blue solution of Pianese gave the best picture of the process in the skin.

The first glance through the microscope was somewhat surprising. The microscopical features of the disease were as peculiar as the clinical and showed no similarity to any other skin affection which I had previously had an opportunity to examine.

Through the whole depth of the corium from the papillary layer to the limits of the subcutaneous tissue, sharply circumscribed foci of a new growth were seen separated from each other (See Plate III.) The new formed foci were generally more widely disseminated than appears in this section.) by at least relatively normal corium tissue. Closer investigation with high power showed that the cells of the new growth were of the type of epithelioid connective-tissue cells, and that the tumor as a rule had its origin in the perivascular lymph spaces. The proliferated cells soon enclosed the greatly dilated vessels with a compact, cylindrical mass. At this early stage the cells were small and more deeply stained than the adult, but there could be no doubt as to their origin and character. As proliferation increased and the foci took different shapes, though still sharply circumscribed, the resemblance to epithelioid cells became more marked. The nuclei were large and vesicular, less deeply stained, and showed distinct nucleoli. The nuclei were sometimes multiple. The cell protoplasm was increased in amount and sent out prolongations in different directions. In a few instances I found true giant cells of the sarcomatous type. Mitosis was scarcely anywhere to be detected.

It is readily understood that this rapid proliferation in areas enclosed in dense connective tissue must derange cell nutrition. In larger foci, not only did the nuclei and protoplasm take stains less well, but cell contours became less distinct. Degeneration in the central cells was also evidenced by the appearance of granules, varying in size, staining deeply, and probably derived from the chromatin substance of the cells. The granules, without careful examination, may easily be taken

for micrococci. A great many cells were destroyed and removed in this way without doubt, and in the oldest foci a marked rarification of the new growth took place, leaving a beautiful network or reticulum well shown in Plate IV. Occasionally, large foci were divided by connective-tissue septa, from which reticulum was, as it were, spun out.

The growth was composed almost entirely of the epithelioid cells, but here and there a capillary vessel could be made out, its endothelium intact. A few leucocytes were seen in recent areas wandering through the tissue, but their number was always very small. "Mastzellen" were found where the process was in its earliest stage. True plasma cells did not occur.

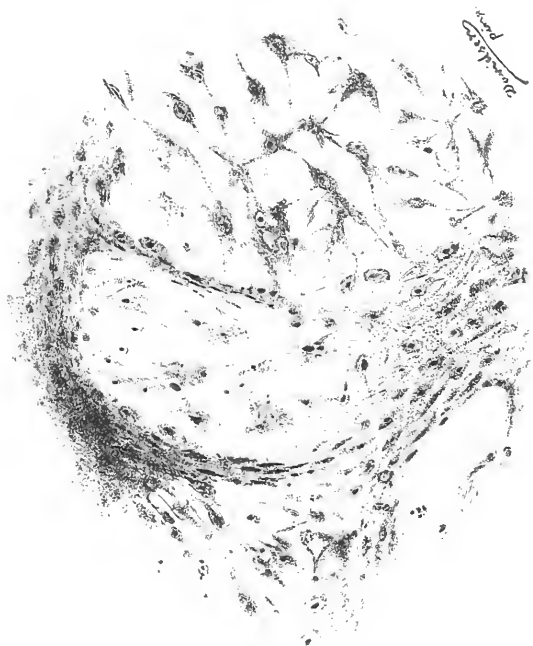
Some foci, most frequently seen in the papillary and upper part of the reticular layer, developed not according to the general rule from perivascular lymph spaces, but from the corium itself, independent of the vessels. These cell masses looked less compact because a part of the collagen fibers remained, and because they stained less deeply with basic anilin dyes than those originating about vessels. A marked tendency to connective-tissue cell proliferation existed throughout the corium. Dilatation of the capillary loops of the papillae accounts for one of the clinical appearances, the bluish color and network of the center of older patches.

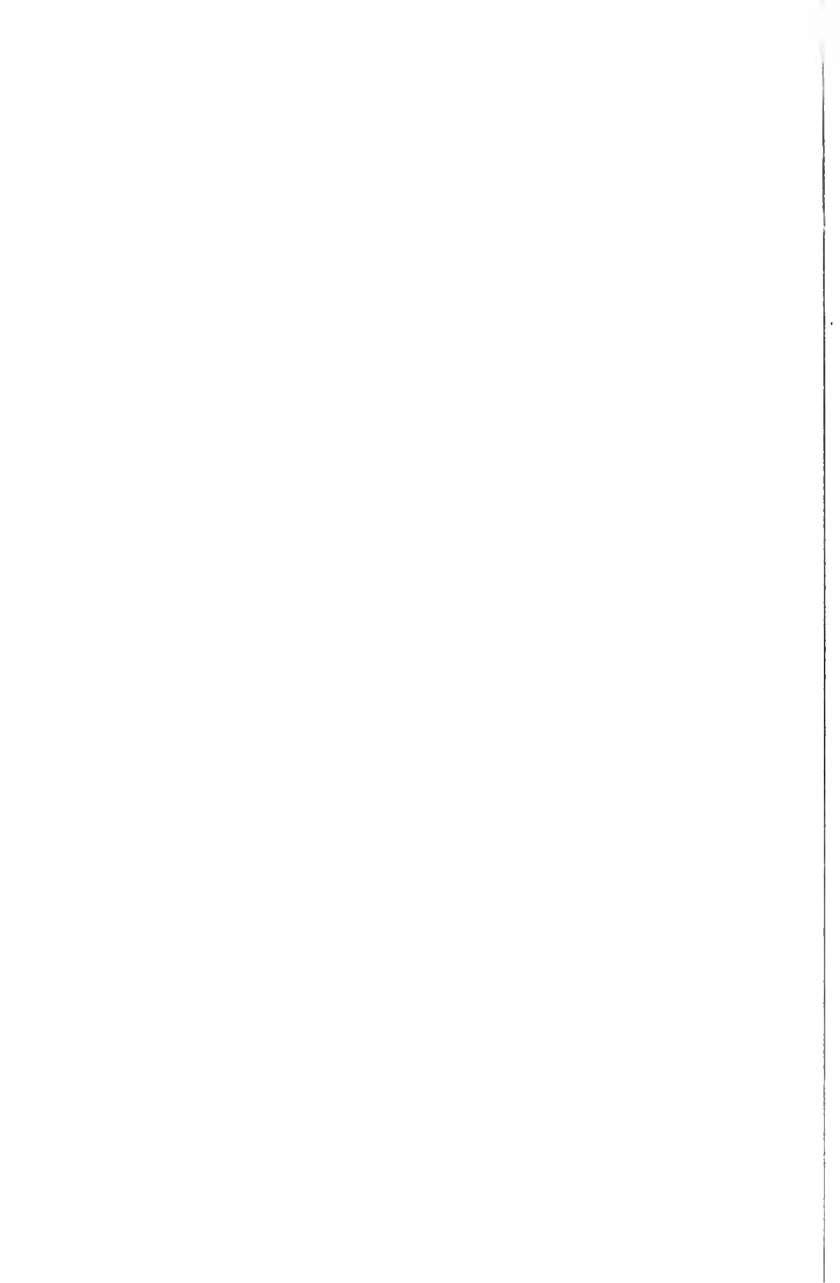
The elastic fibers, stained with orcein, were completely destroyed everywhere in the new growth. In the surrounding tissue they appeared intact, abruptly disappearing at the point of entrance into the diseased areas.

The outer epidermis, as a whole, was not much affected by the process in the corium as might be expected, since the foci generally lay deep in the cutis. The rete over the younger nodules was attacked to the extent of leveling its interpapillary prolongations as well as the papillae by the pressure from below. Like the outer epidermic strata, the skin appendages are little affected, the foci not often appearing in their neighborhood.

My search for micro-organisms has produced no result. Grannles were sometimes met with in the cells of such size and configuration as possibly to be mistaken for micrococci. They were now and then arranged in regular series, and occasionally took on a bacillus-like shape. They were so rare as to be of practically no consequence. No bacteria were found in the blood. Cultures and inoculations were not made; they should be done at the first opportunity.

Etiology.—As for the etiology and pathogenesis of the disease, two theories suggest themselves—that the lesions might be provoked through defective blood-formation or one or another auto-intoxication.





Although no definite information could be elicited as to whether tumefaction of the lymph nodes preceded or followed the skin outbreak, it is not probable that it was the consequence of the skin process. As evidence of this, the cervical glands, in spite of many large nodules on the head, were only slightly swollen.

Summary.—It may be useful to give a short review of the features of this rare disease and compare them with other better known conditions.

Clinically, we find in a middle-aged, pale, thin man, groups of lymph nodes much swollen, and on examination a slight augmentation of the number of white corpuscles. At the same time there exists a widespread, somewhat symmetrical eruption, firm nodules of varying size, on head and extensor surfaces of trunk and extremities. They range in size from a hemp-seed to a bean, and the larger have irregular contours. They involve the whole skin, and are movable with it. Only on the scalp is the infiltration not palpable. Here only yellowish outlines are seen. The color of the early nodules is bright red, becoming darker and finally yellowish or brown. Slight scaling occurs on older lesions. They show a tendency to peripheral spreading and central depression. On the face, they have a peculiar appearance, with blue center and yellow border, a feature present in all the cases I have seen. The nodules disappear finally leaving as a rule a loss of substance in the skin, which may be white on the face, yellow on the back, and darker at the periphery on the legs. Exudation, ulceration never take place. A papular eruption grouped like lichen planus was seen on the inside of the thigh. A tendency to develop at the site of old injury should be remembered. The symmetry is not such as is found in affections whose localization is evidently determined by central nerve influence. The disease seems to be benign, and disappears under arsenic or perhaps spontaneously.

Compared with "Mortimer's Malady," I find many points of resemblance. In the latter there is essentially the same symmetrical eruption of nodules and patches, in the same localities, a slow peripheral spread with central depression, and after long duration spontaneous involution without ulceration and with loss of substance. Hutchinson's cases had good health. He does not, however, mention swelling of lymph nodes nor the peculiar appearance of the face patches. In his cases there were diffuse subcutaneous infiltrations over the bridge of the nose and the ears. The nodules were, according to description and plates, more elevated than I have seen them. Future observation must decide to what degree these differences are essential.

The histology was also unique. The areas of new growth might

be described as perivascular sarcomatoid tissue built up by excessively rapid proliferation of epithelioid connective-tissue cells in the perivascular lymph spaces, with little addition of other varieties. The tumor soon begins to degenerate, and the tissue is rarefied, showing a network of branched connective tissue cells (Plate IV.). It should be remembered that true giant cells of sarcomatous type were found, though rarely. Compared with other new growths of the skin, this must be said histologically to possess affinity to sarcoma and also to the very rare cases of so-called pseudoleucemia cutis described by Arning¹ and Max Joseph.² The new growth here described, nevertheless, seems at present to be rather *sui generis*.

It should be particular emphasized how different the histology of this process is from that of leucemia cutis with its lymphoid tissue and small lymphoid cells.³

As a preliminary name for the clinical and histological type here described the term, "Multiple Benign Sarkoid," perhaps will not be found unsuitable. It will be remembered that Max Joseph recently proposed the name sarkoid—used previously by Kaposi in a wider sense—to be applied to some special forms of sarcomatosis with fatal prognosis. (See *Archiv f. Dermatol.*, B. 46, p. 100.)

¹ Verhandl. des III. Congr. der Deutsch. Dermat. Gesellsch., Leipzig, 1891

² *Idem.*, also *Deutsch. Med. Wochenschr.*, 1891, No. 51.

³ See recent paper of Kreibich, *Archiv f. Derm. u. Syph.*, B. 47, H. 2, Feb., 1899.

THE OPERATIVE ROUTES TO THE SEMINAL VESICLES.¹

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College.

This paper to the members of the
is not so much to set forth any new
what their experience has been
lesions in the various lesions occur-
interference.

In this question a few months ago
present in a patient, the main facts
I will narrate:

Fifteen years ago he had had a
from which he had recovered with
four years ago I removed the right
tuberculosis; the vas was divided
cess has followed. About two
rhea, which was complicated by
epididymis disappeared except at
it finally suppurated and showed

epididymis, canterizing the con-
t iron, and after wound healing
injections of $ZnCl_2$ 8 per cent.
ules persisting.

History.

Gonorrhea was acquired, and
it soon became unmistakably tuber-

culosis along the vas with some rapidity.

I therefore decided to extirpate the whole organ. This I began to
do in the usual way, but the incision soon showed that the vas was in-
volved more extensively than I had at first supposed. The method
which one often sees practised of simply pulling out the cord by rolling
it up on an artery clamp in the hope that it may part above the affected
portion has always seemed to me to leave too much to chance, and I
therefore decided to enlarge the wound in exactly the same manner

¹ Read before Genito-Urinary Section, Acad. of Med., Oct. 10, 1899.

as that employed in the ordinary Bassini operation for hernia. I soon found, however, that even at the internal ring the vas was still perceptibly thickened, and it became necessary to pursue it still further. Accordingly, I cut the deep epigastric vessels between two ligatures, divided the transversalis fascia parallel to Poupart's ligament, and pushed the peritoneum back from the iliac fossa, from the margin of the small pelvis and its wall and from the side of the bladder till the ureter was encountered. Here the vas seemed normal and was divided and removed. The wound was closed and healed without incident. The pathological report upon the vas at its point of division was to the effect that even here it was probably tuberculous. The question then arose how best to remove that portion of the vas between the ureter and the base of the prostate in the presence of ankylosis of the hip-joint. The perineal operation was at once eliminated by the inaccessibility of the region and there remained to be considered the inguinal and sacral routes. While still revolving the problem I had occasion to perform castration upon another patient, and determined to remove the entire vas, if possible, through the inguinal wound made as previously described. It was easy enough to follow the vas down to the point at which it turns around the ureter, but beyond this in the moderately deep pelvis present I found it practically impossible to go.

This experience constrained me to adopt the sacral method, which I performed as follows: The patient was placed on his right side. The Rydygier incision was used through which to enter the pelvis. Beginning just behind the anus the oblique limb was carried up and slightly outward to the level of the junction of the fourth and fifth sacral vertebrae, dividing the tissues attached to the side of the coccyx and last piece of the sacrum. The transverse limb crossed the lower end of the sacrum at the upper end of the oblique. A few strokes of the osteotome divided the sacrum and allowed the triangular flap so formed to be turned down, exposing the rectum. The rectum was next displaced to the right and the prostate exposed, and then working from below upward the base of the bladder with the attached vesicle and vas came easily into view but at some depth. Moderate distention of the bladder brought them nearer to the surface and made their removal a matter of no great difficulty.

The hemorrhage during the deep dissection, while not great at all, necessitated frequent washing of the wound and made the operation somewhat tedious, but did not add substantially to its difficulty. Finally the wound was packed and closed in part in its oblique limb and accurately in its transverse part. Healing was normal. The vas at its entrance into the prostate was normal, as was the vesicle removed.

The routes by which the seminal vesicle may be reached in operations designed for their removal are practically three in number, the inguinal, perineal, and sacral. The steps of the inguinal operation are as follows:

1. Incision over the inguinal canal parallel with Poupart's ligament to scrotum.
2. Splitting aponeurosis of the external oblique over the canal, separation of vas, and enucleation of testis.
3. Ligation of deep epigastric vessels and incisions of transversalis fascia.
4. Separation of peritoneum from iliac fossa wall and pelvis and bladder along the course of the vas deferans to the ureter.
4. Division of vas, its withdrawal from around the ureter.
5. Separation of vas and vesicle from base of bladder and from prostate and their removal.

The only advantage I can see in this operation is this: that both castration and removal of the vas and vesicle may be done through the single wound, as may be necessary in tuberculosis. In other conditions it has many serious drawbacks. To begin with, the wound is a very deep one, even with the base of the bladder elevated by the rectal bag. The number of arterial twigs encountered in the region of the ureter may give rise to troublesome bleeding. There is no small risk of wounding the peritoneum, bladder or ureter. Only one of the vesicles can be reached. Finally the wound is difficult to drain, requires confinement to bed for some time afterwards imperative, and leaves the abdominal wall in a permanently weakened state.

The perineal operation is done in the following steps: 1. A curvilinear incision from one tuberosity to the other, crossing the perineum about an inch in front of the anus and dividing the insertion of the sphincter ani into the tendinous center of the perineum. 2. Division of the anterior fibers of the levator ani and exposure of the rectum and prostate and the separation of these till the base of the prostate and lower ends of the vesicles are reached. 3. Division of one or both ejaculatory ducts at the base of the prostate by a transverse cut, seizure of the vesicle and its forcible extraction.

The advantage of this operation lies in the relatively slight difficulty with which both vesicles and the prostate are reached, and in the greater ease of wound treatment during and subsequent to operation. Its disadvantages are due to the necessity of a preliminary castration and removal of the vas as far as the ureter in case one is operating for tuberculosis, in the risk of dividing both ejaculatory ducts in making the transverse cut, and finally in wounding the bladder or peritoneum in forcibly extracting the vesicle. It finds its best application in establishing drainage in cases of suppuration of the vesicle.

The steps of the sacral operation, using the Rydygier incision, are these:

1. The Rydygier incision—previously described.
2. Displacement of the rectum and exposure of the prostate and base of the bladder.
3. Isolation of either or both vasa and vesicles directly under the eye and their removal.

The disadvantage of this method, like that through the perineum, is that in case of tuberculous disease a preliminary operation in the groin is necessary. But its advantage over both the inguinal and peritoneal operations consists, I think, in the fact that all the steps are carried out directly under the eye, and that there is therefore little risk of accidents peculiar to operations done chiefly in the dark and by the touch alone. Union of the divided sacrum occurs promptly, and the patient suffers only moderate inconvenience for a short time in sitting on soft chairs, and none at all in walking or in sitting on hard, flat surfaces.

This operation, to my mind, is indicated for all conditions in which extirpation of the vesicle is to be carried out, and is the only procedure admissible where carcinoma is in question and the necessity for examination or removal of the sacral lymph nodes is present.

REPORT OF A CASE OF SALICYLIC-ACID DERMATITIS
WITH ITS HISTOLOGY.

BY MARTIN F. ENGMAN, M.D.,

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THE pathogenesis of drug eruptions is still unsolved, though Morrow¹ has probably advanced the theory which best conforms their manifold and varied phenomena. Yet it seems that here where we have a known agent causing a certain eruption we should more quickly fathom the problem and, therefore, through analogy assist in the elucidation of dermatosis of obscurer origin, especially the supposedly toxic disturbances of the skin, which very closely simulate, in their objective and histologic symptoms, the drug eruptions. In the study of the histology of these affections we have the key to their proper solution, for only by examination can we decide what anatomical portions of the skin are involved—their excretory, central, or peripheral origin.

It is surprising in looking over the literature at my command, to find how little, comparatively, has been written upon the histology of drug eruptions. Nothing could be found upon that of salicylic acid but the work of Hodara,² who studied normal human and rabbit skin after applying salicylic-acid plaster and painting with various per cents. of an alcoholic and collodion solution of the same acid. Nothing could be found when the eruption was caused by the internal administration of the drug, although a number of reports of cases occur caused both by salicylic acid and salicylate of soda. Therefore, the report and study of this case is given as of possible assistance in the comparative study of drug eruptions and as a preliminary paper to a more extensive study of the subject in general.

Frank H., age 40, horse-trainer, came to the skin clinic of the Marion-Sims College of Medicine on the 22d of last May for an eruption from which he had been suffering for several days; which was progressively becoming worse. He had always been healthy with the exception of articular rheumatism of which he had had several attacks. On the 6th of May, while suffering from one of these he began taking

¹ "Drug Eruptions."

² *Monatshft. f. prakt. Derm.*, Band xxiii, 1896, p. 117.

some medicine from an old prescription, freshly filled, which had always relieved him. On the 13th following, the backs of his hands and fingers began to itch and burn preceding a "red blotchy eruption;" the skin in the aforesaid region becoming markedly swollen. This condition rapidly extended to the dorsal surface of the wrists and extensor sides of the forearms by the appearance of new lesions. A day or so



Salicylic-Acid Dermatitis.

later a similar eruption appeared on the neck, forehead, and face, the latter becoming puffy.

Upon request the patient produced the prescription from which the medicine had been filled which showed he had been taking from eighty to a hundred grains of salicylic acid daily, to the time of his visit; not an unusual dose. The urine was at once examined for salicyluric acid, it giving the characteristic reaction with the tincture of the chloride of iron. No cast or albumen was found.

The patient was seemingly well nourished and the usual physical examination could find nothing amiss with the internal organs.

The eruption was absolutely symmetrical, this symmetry being very marked even to small lesions and to a small area of necrosis which occurred in the center of a patch on the back of each hand. The lesions consisted of red, shiny, smooth, sharply defined patches ranging from the size of a dime to one large enough to cover the back of the hand. They were slightly raised above the surface, would pit upon pressure leaving a yellowish-red color as the finger was removed, the little pit very slowly raising again to the surface. These erythematous patches were distributed over the backs of the hands, fingers, wrists, extensor sides of forearms; on the neck, forehead, and sides of the face. The conjunctivæ were infected and the lids puffy. The face and extremities were much swollen. The hands had an appearance which would suggest to one at once, if the other lesions were kept from view, the diagnosis of erysipelas; the whole of the surface being involved presenting the swollen, smooth, dusky, shiny appearance of this disease and upon palpation conveying its characteristic boggy sensation to the touch. The redness stopped abruptly, giving the patch a sharp definition. Near the center of each of these lesions was a small necrotic area, which looked like a rather large pustule and when opened, emitted a yellow granular substance (*free from organisms?*¹) leaving an inelastic little cavity. These necrotic areas were free from soreness or tenderness. At no other place could macroscopical necrosis be seen. The other lesions on the fingers, wrists, and arms were smaller, generally the size of a silver quarter, sharply defined, raised, erythematous areas, becoming slightly scaly in the center as they began to undergo involution. On the neck they were becoming more or less annular, some few forming distinct rings as they became sunken in the center and slightly scaly from involution and absorption of the inflammatory products with partial return of the vessels to the normal. Those on the forehead were more scaly, being covered by yellowish greasy scales, probably from secondary infection of the coccus of eczema seborrhoicum, which as Unna has pointed out, is favored by certain inflammatory conditions or lowering of the local resistance, especially in this locality, the forehead. At no other place were such crusts or scales seen, the eruption in general consisting of raised, shiny, smooth, erysipelatously reddened plaques, undergoing involution in the center by slight desquamation and sinking, forming more or less distinct rings. There were about twenty lesions in all, symmetrically distributed, accompanied by slight

¹No culture-tubes were inoculated, only smears stained, without finding organisms.

burning and itching. Unfortunately the patient was only seen twice, an interval of a day between visits, but he sends word that the eruption has entirely disappeared after the cessation of the drug as recommended.

Like all the other drugs causing eruptions, with the possible exception of bromin, iodin, and belladonna, salicylic acid produces no characteristic or distinct eruption but may cause an urticarial, erythematous, scarlatiniform vesicular, bullous, pustular, or punctate eruption, the drug acting differently in different individuals, but probably always producing the same type in the same individual.

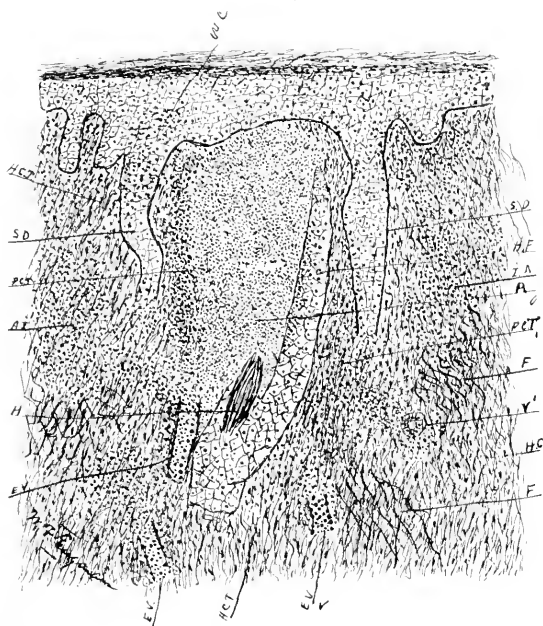
A small piece of skin was excised from the periphery of a patch on the wrist, placed in solution of formalin, hardened in absolute alcohol, embedded in celloidin, and cut. The sections were stained by various methods.

The first changes begin in and about the vessels, which are dilated and engorged, being filled with red blood-cells, especially the more superficial ones, but the deeper with poly and mononuclear leucocytes. The endothelial cells of the vessels are enormously swollen, some of them presenting mitotic figures. There is also a marked proliferation of the perithelia which with the dilatation, engorgement, and cellular edema renders the vessels as thick dark cords over the field. Often the edema of these cells is followed by a degeneration of the vessel walls which allows a perforation, in which case their contents is poured out into the tissues, as is evidenced by the immense number of red cells and fibrin collected in certain parts of the cutis. Following the course of the vessels in the most marked changes in the cutis, but the whole depth of the latter is affected. The collagenous tissue is hypertrophied throughout the sections, formed in large thick bundles coursing in every direction. In the lower portion these bundles are separated by the edema which often forms little lakes, forcing the bundles wide apart. The collagen stains rather irregularly in this portion, some places taking the stain greedily, in others faintly. The lymph spaces are dilated, their endothelia proliferating or swollen, and the spaces often partially filled with a granular homogeneous debris which is probably the remains of necrotic tissue washed into them by the edema. Some of the spaces are almost completely filled by proliferating endothelial cells and this debris. The elastic tissue is decreased and where it does occur takes the stain poorly or irregularly, though the bundles are thicker than usual. Herkheimer's spirals can be demonstrated in a few papillae.

The connective-tissue cells of the cutis are increased in number several times throughout the section. They are edematous, some of them

attaining an immense size with swollen rather pale nucleus and hypertrophied spongioplasm. This edema is most marked away from the immediate vicinity of the vessels for along their course the connective-

FIG. 1.



(H.C.) Wandering cells in epithelium. (S.D.) Sweat-ducts, accidentally involved in inflammatory area. (H.F.) Hair-follicles, remains of wall. (H.) Hair. (E.V.) Engorged vessels with proliferation of endo and perithelial cells and connective cells, with also polynuclear cells about them. (I.V.) Marked plasma-cell infiltration about vessel. (H.C.T.) Hypertrophied collagenous tissue. (P.C.T.) Proliferating connective-tissue cells. (F.) Fibrin, heavy bundles coursing in every direction. (A.) Abscess, which began about hair-follicle, destroying a portion of its wall.

tissue cells are proliferating, which assists in forming the mass of cells always seen about them. New connective tissue is found about the vessels in the subpapillary region, those of the hair-follicle, and also as

an attempt at wall formation about the abscesses (to be described), which in some portions of the latter often invade the abscess cavity as embryonic tissue. (See E. T., Fig. 2.)

In certain portions of the cutis a degeneration of the connective-tissue cells can be studied, especially in those areas of great infiltration about the vessels to be referred to later. This is best observed on the periphery of an inflammatory area where the cells are edematous, with swollen nucleus and hypertrophy of their spongioplasm. The contents of the cell becomes finely granular, taking the stain poorly, their outlines can be made out by darkening the field. The nucleus is generally to one side, paler than normal and still edematous; finally the nucleus can be seen taking the stain feebly with the granular debris, remains of the cell, in clumps about it or a small portion still clinging to it. (See Figure 4, B, C, and D.) Free connective-tissue nuclei are numerous in these degenerating areas. Here also the collagenous bundles stain more feebly and are involved in the granular change. Chromatotexis of Unna¹ and chromatorrhaxis of Frickenhaus² as observed by Hodara in his sections could not be demonstrated here; but in certain places about the inflammatory centers the protoplasm of the connective-tissue cells does not stain well as the cells are beginning to degenerate and there is also seen great numbers of small round bodies of different sizes taking the nuclei stain, which are probably the remains of the nuclear chromatin, free and yet resisting the degeneration. Again there may be found connective-tissue cell nuclei elongated and drawn out into figures, some curved upon themselves, not representing the degeneration seen by Hodara, but similar to it.

Throughout the derma we have a histologic change, beginning in the vessels, perivascular infiltration, hypertrophy of the collagenous tissue, decrease of elastic tissue, swelling, proliferation, and degeneration of the connective-tissue cells and here and there in the section areas of infiltration corresponding to the location of a vessel or vessels. In and about all vessels is this proliferation and diapedesis, but it is most marked in those of the subpapillary plexus. Here in this subpapillary region we find numerous areas of dense cell infiltration and small intra-cutaneous abscesses. These always begin about a vessel, the direction of infiltration being parallel to the papillary layer or more or less circular in outline. They begin by a proliferation of the connective-tissue cells, the appearance of a number of mononuclear or round cells about the vessels. Then there occurs an outpouring of polynuclear leucocytes with necrosis and the formation of a micro-

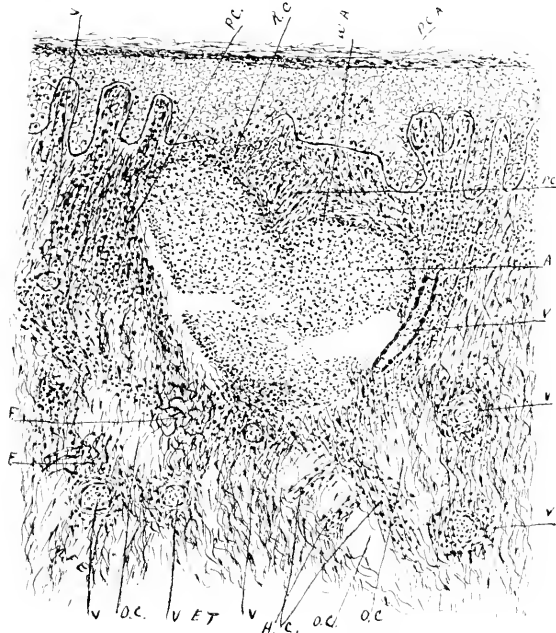
¹ "Histopathology of the skin," p. 462.

² *Ibid.*—Hodara.

scopic subpapillary abscess. Plasma cells are quite plentiful in some fields, seeming to go in groups as they are always seen as several close together. In this subpapillary region they will always be found ir-

FIG. 2.

..



Section showing abscess not in relation to follicle or duct. (V.) Dilated and engorged vessel with perivascular infiltration. (P.C.) Proliferating connective tissue. (A.) Abscess. (W.A.) Wall of abscess. (F.) Fibrin. (O.C.) Edema spaces in the cutis. (H.C.) Bands of hypertrophied collagenous tissue. (P.C.A.) Top of papilla cut across. (R.C.) Extravasation of red blood-cells.

regularly scattered along the vascular channels, some of them undoubtedly presenting karyokenetic figures, although Krompecher¹ states

¹ "Zeigler's Bietrage." Vol. 24. Quoted by Herzog—"A Case of Paget's Disease."—*Medicine*, vol. v, No. 6.

after several years' study of plasma cells he has never seen one of them undergoing division. Unna¹ on the contrary speaks of proliferating plasma cells. These cells, numbers of them, also show signs of degeneration similar to that described by Unna in mycosis fungoides, though not following exactly the steps given by him. The cell becomes very much larger than usually seen and the protoplasm seems to clump and stain unevenly. It increases in size and becomes ragged, losing its usual sharp outlines; the chromatin of the nucleus is drawn out into a clubbed-shaped figure and stains deeply. Peculiar and grotesque shapes are formed by the cell, no two, in this condition, being alike. Some of them become enormously enlarged and often contain two or more nuclear cavities with broken-up nuclei chromatin, generally as deeply stained little balls. Finally there is nothing left of the cell but the framework with the large clumps of chromatin stained deeply, looking like a wire basket containing several little black balls. These figures or cells all take the plasma stain, giving the typical plasma-cell color with polychrome methylin blue and glycerinether. (See Fig. 5.)

The abscesses are formed in any part of the subpapillary portion of the derma, their formation depending entirely upon the vessels and are not in any way whatever specifically related to the follicles or ducts of the skin. Often a hair-follicle is involved in the abscess formation, on account of its great blood-supply, but the process is always extra-follicular and as in other anatomical localities, beginning about the vessels. In Figure 1 is shown an abscess about a hair-follicle; a portion of the wall of the follicle still intact and not yet involved in the necrotic process. As Unna² truly says in speaking of iodine eruptions, "We have to do with an inflammation, usually seated somewhat superficially in the skin, in which the vessels and their surroundings appear as cellular cords, and these develop in certain places, through the assemblage of leucocytes, intra-cutaneous abscesses which may indeed occasionally burst through a follicle." Here we have a condition substantially the same as described by Unna,³ the follicle being invaded by inflammatory cells with the subsequent destruction of a portion or possibly all of its walls, thus obliterating the follicle to the base. The perifollicular inflammation can be very prettily observed in some of the sections, where the vessels can be seen approaching the follicle as dilated densely cellular channels, forming a basket network of inflammatory vessels and

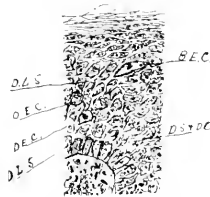
¹ "Ueber Plasmazellen, ausbesondere beim Lupus," *Monatsh f. prakt. Derm.* Bd. xii, p. 296, 1891.

² "The Histopathology of the Diseases of the Skin."

³ *Ibid.*

cell infiltration about the base of the follicle; a clear space of necrotic tissue lying between the vessels as they mount to the follicle. The cell infiltration increases as the vessels pursue their course, between which and the follicle can be seen a dense band of proliferating connective tissue ceasing only at the epithelium. As the vessels give off their filaments to the papillae the abscess formation begins by a mass of cells, consisting of mono (?) and polynuclear leucocytes, plasma cells, a few mast cells, proliferating connective-tissue cells. This condition increasing, an abscess is formed, consisting of the above constituents with the granular remains of collagenous tissue and dark balls of nuclear chromatin probably from degenerated plasma and connective-tissue cells. The abscess increases peripherally and when in the region of a follicle, or when formed about follicular vessels, it may burst through

FIG. 3.



(*B.E.C.*) Ballooned epithelial cell. (*D.L.S.*) Dilated lymph space. (*D.E.C.*) Degenerating epithelial cell. (*D.E.C.*) Edematous epithelial cell, clear space about nucleus. (*D.S. and D.C.*) Dilated lymph space and degenerating epithelial cell. This figure represents a section of the epithelium, showing dilated lymph spaces and edematous cells.

the follicular wall, disintegrating as it progresses by continuous invasion of inflammatory cells.

About the abscesses is an attempt at wall formation which is poorly resistant. Often in the midst of an abscess or near the periphery there are little islets of resistant connective tissue or newly formed embryonic tissue, the cells being so closely packed together. Always about these abscesses the connective tissue is undergoing its greatest change and it is also here that the plasma cells and mast cells are plentiful. The latter are more numerous than normal and are smaller and poorly granular. These sections show beautifully the origin of the mast cell from the connective-tissue cell or that it is difficult to differentiate a mast cell from a connective-tissue cell undergoing a certain change thus allowing their granules to take a reddish color.

About the abscesses extravasation of red blood-cells is generally seen, especially between the epithelium and the abscess. (Fig. 2.) These little abscesses may occur at any point as shown in Figure 2, and are far more frequently seen in non-follicular regions, in relation to no anatomical structure but the vessels, and occur in the subpapillary region on account of the vascularity of this part and probably because of the increased friction and resistance from the divisions and ramifications of the vessels there—a congestive area.

The papillæ of the derma are more or less clubbed, broadened, and elongated from edema and hypertrophy of thin tissue and engorgement and dilatation of the vessels. Along the capillary loops to the papillæ is the usual perivascular infiltration, increasing as it approaches the parent trunk.

The glandular elements of the skin are involved in ratio to their vascularity and situation, but nothing more occurs in them but the expected perivascular and vascular change, which is comparatively slight. The glandular epithelium are only slightly edematous. The ducts of the coil glands are peculiarly free from inflammatory change when pursuing their course alone, but when happening to be near an inflammatory area they, of course, become involved; but no marked change was observed in them as they in no place pass through such an area. In Fig. 1 is seen a duct on each side of the field near the abscess but are not yet involved in the necrosis, only a few wandering cells having invaded them.

Fibrin is prominently distributed in heavy filaments, more or less throughout the central portion of the cutis, particularly about the areas of inflammation and vessels. In some sections it is more marked than others, the papillary bodies, however, being entirely free.

The epithelium presents the picture usually seen, where there is marked edema in the cutis. The intercellular lymph spaces are dilated, sometimes enormously with the prickles stretched as narrow bridges across these channels, showing their remarkable elasticity. All the lymph spaces are dilated, but these large ones are best seen in the central and upper portion of the epidermis as the pressure below has forced the serum farther on pushing the cells in the upper portion and just under the granular layer wide apart. The epithelial cells stain irregularly in areas and in certain places have degenerated. In several places, also in the basal layer, this degeneration includes several cells forming an attempt at vesicle formation by their own degeneration and widening of the intercellular spaces. At one place this was seen along the course of a duct, but it occurs rarely, being situated in any portion of the epidermis.

All of the cells are swollen, the nuclear cavities widely dilated, the nucleus swimming in a moat of serum. Some of these cells attain immense dimensions. This nuclear space dilatation occurs in different degrees from a clear space about the nucleus to a decided "ballooning" of the cell, in which case the latter becomes enormously enlarged, the nuclear space distended at the expense of the protoplasm which is forced to a narrow rim about it except in the lower portion where it occupies a large space, having dropped down, as it were, into the bottom of the cell, taking the stain intensely. (Fig. 4, A.) These ballooned cells occur frequently and precede a complete degeneration. (See Figs. 3 and 4.)

Mitosis occurs much more frequently than usual. The basal cells

FIG. 4.



- (A) Ballooned epithelial cell, nucleus swimming in the fluid. (B) Swollen connective-tissue cell with hypertrophied spongioplasm. (C) Connective-tissue cell, beginning to degenerate. Spongioplasm becomes granular and takes stain poorly, nucleus swollen and pushed to one side, becoming extended as it were. (D) Degenerated connective-tissue cell. Nucleus pale with remains of cell as granular detritus about and clinging to it.

are swollen, but from lateral pressure are forced out into often mere long thin plates.

The granular layer is reduced, the granules being in larger grains than usual.

The horny layer is slightly thickened and has a spongy appearance.

The interpapillary rete pegs are broadened and elongated from the lengthening of the papillæ and the enlargement of this own anatomical constituents.

Wandering cells invade the epidermis, especially near the abscesses and areas of infiltration. The epidermis is, therefore, much thickened by the inter- and intracellular edema and the mitosis.

To sum up, the changes observed in these sections are concisely as follows:

1. Dilatation and engorgement of the vessels with inflammatory changes in their walls.
2. Edema of the tissue.
3. Hypertrophy of the collagen.
4. Cell infiltration about all the vessels, most marked in the sub-papillary region.
5. Formation of densely packed areas of inflammatory cells and intracutaneous abscesses.
6. These abscesses may involve the hair-follicle secondarily.
7. Proliferation of connective-tissue cells along course of vessels and about inflammatory and abscess areas.
8. Deposit of fibrin in certain localities.
9. Dilatation of lymph spaces of epidermis with edema of epithelium cells.
10. Ballooning of epithelial cells
11. Necrosis of epithelial cells in areas with attempt at vesicle formation.
12. Invasion of epidermis by wandering cells.

We have, therefore, the pathologic condition necessary to cause the objective symptoms presented in this case. (1) The swelling and elevation of the patches, from the edema and hypertrophy of the tissue and changes in the vessels. (2) The color from the engorgement of the vessels and the superficial extravasation of the red blood-cells. (3) The inelasticity of the tissue, as proved by the slowness of the pit to return to the surface, from the decrease of the elastic tissue, edema, and hypertrophy of the collagen. (4) The necrosis on the back of the hands, a larger abscess having reached the surface. No organism could be found anywhere in the sections. No tubes were inoculated.

The formalin solution in which the excised piece had been fixed was tested for salicylic acid without result. From experiment it was found that very small quantities in formalin solution would give a reaction, but not much value should be placed upon this examination.

The experiments of Hodara¹ are interesting in relation to this study. His conclusions are concisely as follows: Salicylic acid externally applied causes a peeling off of the horny layer as flaky scales, the stronger the application the thicker the scales; an intercellular edema of the epithelial cells, especially of the prickle cells, which after several days of painting becomes more or less necrotic in areas; but this effect is not uniform, for while the prickle layer in some places (prob-

¹ *Ibid.*

ably where the plaster was more closely adherent) was almost wholly homogeneous, in other places only the upper layers were effected. After necrosis, the process of exfoliation, a new formation and regeneration at once begins. The young epidermis then raises the necrotic mass in the form of a scale. With very strong per cents. on the third day there is an enormous inter- and intracellular edema with necrosis of the whole depth of the prickly layer with homogenized cells irregularly scattered, all to be cast off as a scale. He also describes an edema the epithelial cells (alteration courtain of Leloir), a swelling of the nucleus which seems to swim in the serum of the cell. No polynuclear leucocytes were observed. The acid calls forth in the cutis a moderate inflammatory irritation, evidenced by widening of the vessels, proliferation of perithelia and vascular connective-tissue cells and is a poison to the nuclear chromatin of these cells, as it causes in them the changes known as chromatexis and chromatorrhesis. There is also a hypertrophy of their spongioplasm.

In comparing these studies, at the first glance, the similarity of their

FIG. 5.



(A) Plasma cell with clumping of protoplasm. (B) Same, degenerating. (C) Same, with two nuclear cavities and broken-up chromatin.

histologic pictures is most striking; namely, the swelling and ballooning of the epithelial cells, widening of the vessels, proliferation and degeneration of connective-tissue cells, perivascular infiltration, etc.; the effects being from without in Hodara's studies and, therefore, most marked in the epidermis and from within in this case, the cutis presenting the greatest change. But if we pause to consider we will at once see that the strikingly similar conditions are only the ones that may occur in the skin caused by many forms of irritation, none of them being peculiar to this agent. Furthermore, in this case we do not find the effects in the horny layer or deeper in the epithelium found by Hodara, nor the specific nuclear-chromatin deformities.

In these sections we have merely a severe exudative inflammation, resulting in abscess formation without any characteristic or specific effect upon any of the histologic elements of the tissue, the differences

from an ordinary inflammation that may occur can be explained probably here, as in all cases, by the reaction of the individual—his personal equation entering into the histologic picture as it does into that of the clinical.

A CASTRATION—FAILURE.¹

BY EDWARD L. KEYES, JR.

New York.

MR. PRESIDENT and Gentleman: I take pleasure in bringing before you this evening a patient upon whom I performed castration for hypertrophy of the prostrate one year ago. This is my only personal experience with the operation, and I am not encouraged to duplicate it, for it has been a complete failure, first and last. The operation, I admit, has never appealed very strongly to me, for the clinical experience of Drs. Keyes and Chetwood, with whom I have the honor to be associated, has been anything but encouraging, while the theoretical basis for the operation—on the one hand the uterovarian analogy, on the other the evidence afforded by castration upon the lower animals—has seemed to me wholly insufficient—notably the analogy of the female, an analogy based upon two facts absolutely contradicted by the best observers, the one that the prostate is the homologue of the uterus, the other that prostatic hypertrophy is comparable to uterine fibroid. Despite this pessimistic view, however, I was encouraged by reading an able article by Albarrañ and Motz, in *Guyon's Annales*,² to believe that the primary effect of castration was a rapid reduction of congestion, which might be expected to give some relief to any case in which congestion was a prominent feature, even if the subsequent atrophy of the gland did not take place. My belief is that in this case there has been no reduction of congestion nor any atrophy. The details of the case are as follows:

Aug. 31, 1898—The patient is a carpenter, sixty-three years of age, married. His urinary organs and functions were normal until the autumn of 1897, when he was seized with an acute complete retention of urine. This lasted a week, during which time he learned to use a catheter. Since then he has been well until two months ago, when he suffered from some dysuria and began to use his catheter irregularly.

¹ Read before G.-U. Section, October, 1899.

² 1898, January, February, and March.

The dysuria kept increasing until last week when he appears to have infected himself and produced acute cystitis. Efforts to relieve this with a woven catheter only provoked bleeding, and he applied for counsel.

Present Condition: He looks anemic, feeble, and flabby. Heart and lungs normal. No œdema, except a puffiness under the eyes. The urine is ammoniacal and so filled with blood and mucus as to be unfit for any test. The catheter draws urine at $8\frac{3}{4}$ inches. The bladder holds three ounces practically all residual. No atony. The searcher detects absolutely no stone. By the rectum the prostate feels large and firm. It contains no nodules, nor is it tender. The vesicles are not distended. The kidneys cannot be felt."

Such was the patient's condition; his chief complaint was the vesical irritability and he was frightened by the repeated hemorrhages.

By exchanging his woven catheter for a small rubber one (11F.) his hemorrhages were checked. He was made to use the catheter three times a day and to wash his bladder daily with boracic acid, while every other day for six weeks the bladder was irrigated with nitrate-of-silver or sublimate solution or instillations of thallin sulphate or nitrate of silver were administered. In the meanwhile he was taking internally salol, urotropin, boracic acid, oil of wintergreen, and strychnin in various combinations. At the end of the six weeks the urine was but slightly clearer, the bladder capacity had risen to $\bar{5}$ iv. He was considerably weaker, and urinating in great distress every half-hour. He was not holding his own. Some radical change in the treatment was evidently necessary. I considered his general health such as not to justify prostatectomy, while I was not at all confident of my ability to keep him in bed with a permanent catheter. In view, moreover, of the importance of congestion and inflammation in this case, I decided to castrate him. This I did, accordingly on October 18th, and kept him in bed for ten days thereafter. During this time his condition ameliorated slightly and he left the hospital urinating hourly, using the catheter nearly every time. A month later he was urinating every $1\frac{1}{2}$ to 2 hours day and night. The urine was clear enough of pus to test for albumin, of which it contained $\frac{1}{12}$ of 1 per cent. by weight. Sp. gr. 1012. I then lost sight of him until last week when he appeared complaining of profuse hemorrhage, the first since the beginning of treatment. He still urinates hourly and depends almost entirely on the catheter. He irrigates his bladder once a day with boracic-acid solution. The hemorrhage was, I believe, caused by stone, of which he passed several, within the past six months. I have not searched him since the operation, but shall do so as soon as he is well over the present attack.

At present he is no stronger than at the time of operation, though he

looks rather brighter. The prostate is, as nearly as I can judge, about the same size as it was when first I felt it. The urine is full of blood. He passes $\bar{5}$ ii voluntarily and then $\bar{5}$ iv by catheter. The urethral length is undiminished.

My conclusions are:

I. That the prostatic enlargement in this case is chiefly peripheral, and has been unaffected by treatment.

II. That the cystitis has grown less severe progressively, and that the operation had no evident effect upon it.

III. That the irritability has remained about the same, and the slight improvement shown after operation may well have been due to the rest and systematic irrigation of his bladder employed at the hospital.

IV. That the operation has been a complete failure.

V. That perineal prostatectomy with probable lithotripsy is now indicated.¹

100 East 34th street.

Society Transactions.

NEW YORK DERMATOLOGICAL SOCIETY

TWO HUNDRED AND EIGHTY-FIRST REGULAR MEETING, SEPTEMBER 26, 1890

JAMES C. JOHNSTON, M.D., *President*.

Epithelioma of the Lower Lip—DR. CHARLES W. ALLEN presented the case of Mr. C.—, sixty-four years of age, a watchman by occupation, who, seven years ago, had had a sore on the left side of the lower lip. It had been called a wart, but had disappeared under treatment. It had returned, however, three months ago. When first seen, on September 2, there was no doubt about the diagnosis of epithelioma. There were evidences of rather rapid extension inward, and a second wart-like growth had appeared along-side the first. The man had been told by several surgeons that an extensive cutting operation was required, but to this he objected. Dr. Allen had, therefore, applied arsenical paste, and had repeated this application once. Since then it had been dressed with an aristol ointment.

DR. A. R. ROBINSON remarked that it was too early to judge of the effect of the treatment, but it is probably satisfactory. The nodule present was too small to allow of any definite deductions as to its nature. It may have nothing to do with the epithelioma on the lip.

DR. DANIEL LEWIS took the same view regarding the effect of the treatment. He said there was always more or less inflammatory infiltration for five or six

¹ Since this report I have touched a small stone, and the patient will probably soon consent to operation.

weeks after the application of arsenical paste. As a general rule, he would not advocate treating epithelioma of the lip with the paste, believing that operation was ordinarily much more satisfactory.

DR. GEORGE T. ELLIOT said that there were two very suspicious lymphatic nodules under the jaw. They were too sharply defined and distinct to be simple inflammatory nodules. The site of the epithelioma presented an appearance which also seemed to him to indicate that there was still epitheliomatous tissue present.

DR. ALLEN asked for an expression of opinion as to whether the man's chances had been made worse by reason of such treatment.

DR. LEWIS replied that he did not believe that the application of the paste ever made subsequent operation more formidable or tended to promote recurrence or produce any mischief whatever. The only doubt in his mind regarding the case was whether that gland had been present before the first application; if so, it should have been removed at the time.

DR. ROBINSON said that usually treatment by any caustic which was not promptly effectual and complete made the condition worse, for the reason that more blood was brought to the part, the lymph channels were enlarged, proliferation was more active, and, hence, there was greater tendency to secondary infection.

DR. LEWIS explained that he had referred only to an actual escharotic, like arsenical paste. He agreed with Dr. Robinson that the action of mild caustics, such as nitrate of silver, carbolic acid, etc., often promoted the infiltration of adjacent tissues with cancer elements.

Keratosis of the Lip—Precancerous (?)—DR. ALLEN also presented David K.—, twenty-four years of age, married, a tailor, father of one child. He had never had any venereal disease, he said, and there was nothing in the history or examination to indicate syphilitic infection. In spite of this he had been placed on an anti-syphilitic course, as a test, but without any appreciable effect on the sore upon the lip. On June 24th, when first seen, the condition had existed for six weeks. It had begun as a fissure, which bled at times. It increased in size, and became a hardened patch, alternately white and blackish, as the patient expressed it. In the center of the patch was a rather deep fissure, painful at times. After softening it by the use of salicylic soap plaster, it had been repeatedly cauterized with trichloroacetic acid, but with very slight effect. The verrucous margin on the inner side is now nearly flat from the burnings. The patient seemed to be rather young for epithelioma to develop.

DR. J. A. FORDYCE thought it might be a precancerous keratosis. It was doubtful whether there was yet any true epithelioma, although he thought there would be, in time, if the case were let alone.

DR. G. H. FOX said that the case was one which would almost certainly become an epithelioma, and, therefore, it should be treated as such. He thought there was an erroneous opinion held by the profession in general about epithelioma occurring almost exclusively after the age of forty years. He had seen similar cases of epitheliomatous keratosis of the lip in persons of the same age as this man, and he has seen superficial epithelioma of the face in subjects as young as twenty-five.

DR. KLOTZ mentioned that a number of cases of epithelioma had been published occurring in children, referring particularly to one case reported by Dr. Hartzell. (*N. Y. Med. Jour.*, 1898, LXVII., 311.)

DR. HENRY H. WHITEHOUSE agreed with the remarks of Dr. Fox.

DR. ELLIOT believed that the physicians who would make a diagnosis of syphilis in such cases simply because the patient was below forty, would likewise err in diagnosis if the same condition were seen by them in a person over forty years of age.

DR. FOX replied that he had known very good surgeons to make an erroneous diagnosis simply because of the youth of the subject.

DR. J. C. JOHNSTON remarked that the question of diagnosis in the case under discussion could be very easily settled by a microscopical examination.

DR. ROBINSON asked if those present had seen many cases of epithelioma in persons under the age of thirty. In his experience, cutaneous epithelioma was rather rare before the age of thirty years.

DR. SHERWELL remarked that its occurrence in such young persons had been very rare in his experience also. He had seen cancer of the lip only twice in men of twenty-five.

DR. FOX said that he would admit that such cases were rare, but the exceptions were so numerous that it was misleading to state, as the text-books did, that epithelioma almost never occurred under the age of forty.

DR. ALLEN remarked that he intended to subject the case to microscopical examination, and would report upon it.

Xeroderma Pigmentosum.—DR. BRONSON presented a patient with the following history: The patient was a girl, eight years of age, of sturdy, well-nourished appearance, but rather small for her age. Her mother stated that when the child was about four months old she noticed a decided disposition to redness of the face, especially across the bridge of the nose and beneath the eyes. Whenever she had been exposed to the sun the face would become swollen and red as if from sunburn, the effects of which would last for several days. Later on there was a tendency for blisters to form after such exposures, which were attended with considerable soreness and would last for a week or ten days. About four years ago the mother first noticed that the face and hands were much freckled, and at this time also warts began to appear on the face. There was never any excoriation nor discharge except at the time when the blisters occurred. There has never been any considerable itching. The spot of melanoderma on the temple first appeared about two years ago.

On examination, the face, especially over the cheeks, nose, and chin looked rough and scaly, and at first glance suggested eczema. On closer inspection it was seen that there were numerous warty elevations upon the cheeks and about the *ala nasi*, abundant freckles and, in between a multitude of shallow, depressed, smooth or slightly puckered scars. Underneath the eyes the scars are flatter, larger and have a glazed look, and there is some ectropion, especially of left eyelid. On the right temple was a deeply pigmented spot the size of a finger-nail. Here and there little telangiectases, not numerous, some as large as pinheads and of bright red color, disappearing on pressure; others of arachnoid character, but very small. On the hands the conditions are similar. There are numerous freckles on backs of hands and wrists, few scars and but faint signs of telangiectasis. There are a number of warts here, but partaking more of the character of verrucae vulgares, and much denser than those in the face. Some of the warts on the face had been removed.

Dr. Bronson said that there seemed to be a closer relation between the

changes that had taken place and some previous inflammation. According to the history given at first there was only a peculiar susceptibility to exposure to heat,



Dr. Bronson's Case of Xeroderma Pigmentosum.

particularly from the sun, with the effect of producing not only erythema but blisters, even when the exposure was apparently inconsiderable. Even now the face always becomes worse upon exposure to the sun. It was evident, however,

that the chief factor could not be light, inasmuch as parts not exposed were also affected, as on the chest and arms. It has been stated that the disease rarely extends below the nipples, but it yet occurs on parts usually covered.

It did not seem to him that the changes corresponded to those in senile degeneration, for the lesions were more or less circumscribed or discrete and each apparently represented a previous inflammatory lesion. He referred to a letter recently received from Dr. Bowen of Boston, under whose charge the case had formerly been. Dr. Bowen stated that when he saw the case some three years ago, there was an acute vesicular outbreak on face and hands following exposure to the sun, and the disease hydro-aestivale was suggested, though subsequently he also regarded it as xeroderma pigmentosum. At one time (in 1896) he had removed a small nodule from the conjunctiva of one eye, which, on microscopic examinations, proved to be epitheliomatous.

Dr. P. A. MORROW concurred unqualifiedly in the diagnosis. It was a very typical example of the disease, and was the first case of the kind that had come under his own examination.

Dr. ROBINSON also accepted the diagnosis given.

Dr. FORDYCE thought that Mr. Jonathan Hutchinson's designation of this as "premature senility" of the skin was a very apt one.

Dr. JOHNSTON thought the case illustrated very beautifully one etiological factor, i. e., the effect of light on the skin. He had seen three of these cases, and in each of them the disease had stopped at the line of the clothing. Last summer, at Edinburgh, two cases had been presented at the Royal Infirmary. One of these patients, a girl, wore out-doors in the daytime a brown tissue veil, and her skin was thickly smeared with an ointment containing a brown pigment. For a long time these measures had served to control the spread of the disease, the chemical rays of light being excluded. The girl was in fair condition.

Dr. MORROW said that it seemed to him a question as to whether the etiological factor referred to was really responsible for the condition. Certain diseases, it was well-known, had a preference for certain localities, and this was determined by certain peculiarities of anatomical structure. In the case cited the improvement might have been due to the effect of local treatment.

Dr. ELLIOT remarked that Riehl had presented a case in which the disease had not developed until the age of sixty years, so it hardly seemed probable that light had anything to do with the origin of the process.

Dr. BRONXON said that there seemed to be a close relation between the changes and the inflammation. According to the history in this case, there had been at first only a peculiar susceptibility to light, particularly sunlight. In addition to this, blisters had been produced. Even now the face was much worse upon exposure to light. It was evident, however, that light was not the only factor. As a rule, the pigmentation did not extend below the region of the nipple; the upper part of the chest was habitually covered. The condition did not seem to him to correspond accurately to the changes of senility, for the efflorescences seemed to be quite limited in area. Each one seemed to represent an antecedent inflammatory lesion. Subsequently there were atrophy and the formation of warts. In the note from Dr. Bowen he stated that there had been an acute vesicular outbreak. After having watched the case for a time he had come to the conclusion that it was one of xeroderma pigmentosum. An epitheliomatous nodule had been excised from the eye. This early occurrence of epithelioma seemed to the speaker of special interest.

Acnitis.—DR. C. W. ALLEN presented a woman with a peculiar eruption on the arms, similar to some cases that had been previously presented to the society, one by himself. It was a suppurative process leaving pitting like *acne varioliformis*.

DR. FORDYCE thought the case was a fairly typical one. The lesions seemed to be more superficially situated than in some of the cases of this kind. The atrophy and scar formation were certainly very characteristic.

DR. ELLIOT thought a much better name for this condition was *hydradenitis*. The woman was certainly not a tubercular subject, yet from the description given of tuberculides and of paratubercular lesions it would seem that this should be a case of that class. He would like to hear from Dr. Johnston on this subject.

DR. JOHNSTON said that he had carefully studied four or five of these cases. The clinical appearance had been nearly the same in all. The term in general use is *hydradenitis*, but it might occur absolutely independently of all the skin appendages, so that some other term should be found to describe the condition more accurately. The process was undoubtedly a *granuloma*. The necrosis was such a marked feature in these cases that the term "*necrotic granuloma*" seemed to him especially descriptive. In his opinion, all *granulomata* were due to some kind of poisoning. All of these cases did not, by any means, occur in tuberculous subjects; Dr. Allen had reported a case in point, occurring in a perfectly healthy subject. Nevertheless of the cases that he had collected and reported, 56 per cent. had occurred in tuberculous subjects.

Scleroderma.—DR. GEORGE T. ELLIOT presented a case of *scleroderma* which had begun twelve years ago. The patient had been first seen ten years previously, at which time she had been engaged in typewriting. The disease had appeared first on the tips of the fingers, and had then extended up on to the wrists and arms, and had finally appeared on the face. He presented the case on account of the *sclerodactylic* existing and especially for the reason that though the terminal phalanges were greatly shortened, still the joint was very slightly affected and the phalanx could still be flexed and extended to a considerable degree.

DR. MORROW said that the pathological basis of these changes had not been very definitely determined. These cases certainly resembled clinically certain changes met with in leprosy, but he did not accept the theory that it was really a form of leprosy. The changes apparent in other parts of the body had interested him, particularly as he understood that the *sclerodermatous* patches on the face had improved.

DR. ELLIOT said that ten years ago she had been treated for a time by hot water and massage. He had not seen her for fully nine years, during which time she had received no treatment, yet there had been a decided improvement in the disease as a whole.

DR. BRONSON asked how often a relation between this condition and a general *marasmus* was found. He only recalled one case of *sclerodactylic*—a very much more marked one than that just presented—and it had been associated with a marked *marasmus*.

DR. ALLEN said that this was the first case he remembered in which the terminal phalanges were so implicated, and yet the mobility of the joint was preserved. He recalled a case in which the fingers tapered very markedly and the nails were only about one-eighth of an inch in length. The skin of the face was very tense, giving a mummified appearance to the countenance.

DR. FOX said that he had shown two cases to the society in which the term

scleroderma had been used. The skin was hidebound and hard, but the disease seemed to him primarily of nervous origin. In one of the cases he had presented there had been the same glossy condition of the fingers and shortening of the finger nails, but with this a clubbed condition of the terminal phalanges. He had seen just such a case a few days ago associated with atrophy of the face. Last spring he had presented a boy with marked wasting of the subcutaneous tissues, but the skin itself did not seem to be affected, although it had been more or less hardened in places. We must recognize, therefore, that under the term scleroderma are included several distinct pathological conditions, some of which do not primarily affect the skin.

DR. KLOTZ called attention to the similarity of the case with one presented by him before the Society last winter. It was difficult to estimate the effect of treatment in such cases during the milder season, because as a rule they exhibit marked improvement and generally do better in warmer weather. Although his patient was not in perfect health, she certainly did not show any signs of a state of marasmus. She had been treated with thyroid tablets for several months, apparently without the slightest benefit.

DR. SHERWELL said that his case, referred to by Dr. Fox, had shown progressive loss of fat and subcutaneous tissue, the skin itself not being especially affected, but being firmly attached to the aponeuroses of the muscles, doubtless the muscles were somewhat atrophied, but not so much as to affect movement or function. He also believed in its neurotic causation.

DR. ELLIOT said that in the symptomatology of scleroderma, in general, it had been observed that the muscles and aponeuroses would be affected, and that these people often died from sclerosis of the internal organs; hence, in the terminal stages it was not surprising to have marasmus.

Keratosiis of the Palm.—DR. ALLEN presented a physician with keratosiis which had existed for thirteen years. At times, little sago-grain nodules appeared, which were softened by the application of salicylic acid ointment, and cut out.

DR. FORDYCE said that the underlying condition was usually a hyperæmia or dilatation of the vessels; the keratosiis itself could be relieved without much difficulty, but was apt to recur.

DR. BRONSON said that about all that could be done was to get rid of the hypertrophy of the epidermis, but this was quite important.

DR. KLOTZ thought that these conditions were always more or less congenital. Some of them were associated with hyperidrosis, while in other cases visible perspiration was entirely absent. He had had this patient under his observation for a short time several years ago, while he was serving on the house staff of a hospital. While he was engaged in original work, the condition became decidedly worse, and little progress was made with the treatment. He then had used the salicylic acid soap plaster with some temporary benefit, particularly as regards the fissures. He had several times seen good results from the internal use of philocarpine in cases not associated with hyperidrosis; in one which he had published in 1890, great improvement had been obtained, which lasted for at least six months after treatment had been stopped.

DR. ALLEN said that he was of the opinion that the keratosiis in this case was the result of taking arsenic. Up to the age of thirteen years the patient had been entirely free from anything of the kind. He had then taken for a long time as

a medicine large doses of arsenic. The speaker said he believed this was the explanation of the keratosis, although it was difficult to understand why the manifestations persisted so many years, but we know that, in some instances, they did so persist.

DR. MORROW said he doubted if any such effect from any drug would persist for so many years. Keratosis might be produced by arsenic, but he was of the opinion that it disappeared soon after the discontinuance of the drug.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON GENITO-URINARY SURGERY, TUESDAY EVENING, OCTOBER 10, 1899,

AT 8.30 O'CLOCK

G. K. SWINBURNE, M.D., *Chairman*.

A Case of Spermatorrhea and Prostatorrhea Probably Due to Taenia Solium.—By DR. B. LAPOWSKI.

DR. LAPOWSKI said that to his knowledge it was the first case in medical literature. It was a case of spermatorrhea and prostatorrhea due to taenia solium. The patient, 28 years old, came to him about the first of September with a constant discharge from his meatus. The discharge was milky, sticky. He had suffered from it for 18 months. He gave a history of soft chancre several years ago and six or seven attacks of gonorrhea during his life, the first attack when he was 18 years old, the last attack six or eight months before he came to him. Injections and internal medication were used during the gonorrheal attacks. For the last 18 months he noticed a discharge coming from the penis. He did not pay any attention to it for some time; but when the discharge began to appear at daytime and at night he consulted physicians, who ascribed his sufferings to the gonorrhea. All possible known remedies were tried and yet when he opened his meatus he always saw some milky discharge. The physicians he consulted treated him for gonorrhea because gonococci were found in his discharge. The gonorrheal discharge was stopped but the milky fluid always appeared. When he had the gonorrhea he could not see the milky discharge, but when it stopped the discharge always reappeared. When the speaker first saw him there was no gonorrheal discharge at all; the meatus was perfectly clean; no redness, no swelling, no pain. The first and third portion of urine contained small shreds, the second portion was perfectly clear. The microscope revealed in the shreds gonococci (Claplewski's and Weigert's methods). The speaker said he could never see the discharge coming out from the patient's meatus. It always seemed a milky fluid. On examination he found it contained prostatic fluid and spermatozoa. He examined the discharge nine times and six times found prostatic fluid alone without spermatozoa and three times both. He proposed to him several means of treatment. He always said: "Doctor, it was done to me." He found the prostate in normal condition; painless, nothing abnormal to the touch in the rectum. He succeeded twice in pressing out seminal fluid with spermatozoa and the seminal vesicles seemed to be normal to the touch. One day the patient came to him and during the examination he saw the discharge oozing out from the urethra. The microscope revealed prostatic fluid and spermatozoa. He washed

out the anterior and posterior urethra. He put his finger in the rectum and tried to reach the prostate, but failed to reach the seminal vesicles. He did find neither pus in the pressed-out fluid nor spermatozoa; only amyloid bodies, and upon the addition of a one-per-cent solution of phosphate of ammonia, Boettcher's crystals. As he took out his finger from the rectum it was covered with a mucoid substance. Then he put the mucus under a microscope and to his astonishment found eggs of *tenia solium*. There was not the slightest symptom which could attract his attention to the presence of *tenia*. The patient never complained of anything which could suggest its presence. Afterwards when he found the eggs he questioned him more closely, but could not detect any subjective or objective symptoms. He directed the patient to bring him the next day the first portion of the feces. Microscopically, nothing abnormal could be seen, but the microscope showed a great number of eggs. He gave him pelletierin. The patient brought him two days after the *tenia*, which was presented by Dr. Lapowski. Unfortunately the head remained. That was done on the 15th of September. He saw him from that time ten or twelve times. His meatus was perfectly dry. The discharge stopped entirely. There are no spermatozoa nor prostatic elements in the urine.

Specimen of Hypernephroma at the Renal Pelvis.—Presented by DR. JOHNSTON.

This specimen was loaned by Dr. O. H. Schultz of Cornell Med. College. The tumor occurred in this particular instance outside of and pressing upon the renal pelvis, but not blocking the ureter. It was about the size of a hazel-nut and after six-months' immersion preserved the characteristic tint, a golden yellow, which led early investigators to suppose that it was fatty. There is no adipose tissue present, the tumor being composed of misplaced embryonal suprarenal tissue. The mistake as to its nature gave rise to one of its many names, *struma lipomatosa aberrantia renalis*.

There was no symptom referable to this growth at any time during the patient's 48 years of life, the discovery being made at autopsy. The speaker showed a photograph which illustrated its appearance under magnification of 200 diameters admirably. The supposedly fatty degenerative character of these epithelial cells was well shown. Hypernephroma may be benign as here or pursue a malignant course, with metastasis, cachexia, and death.

Report of a Case of Prostatic Hypertrophy after Castration.—DR. E. L. KEYES read the report of a case and showed the patient. See page 568.

DISCUSSION ON DR. KEYES'S CASE

DR. OTIS said that it was a very interesting one. While he would be unwilling to say that there was no benefit derived from castration in enlarged prostates, at the same time it certainly has not held forth the very brilliant future that was predicted for it at its origination. It was a curious thing that in all these new remedies in diseases from tuberculosis to corns, the patients get well at first and then failures appear, then these remedies disappear into innocuous desuetude. It was the same way with any operation which did not attack the prostate directly; there was very little use, the speaker thought, in any operation which did not attack the prostate directly. The same might be said of the

Bottini operation. Those pelvic operations will be of some use in certain cases, but where a decided procedure was necessary prostatectomy is the only thing we have at present which gave decided advantage.

Dr. CHETWOOD said that it appeared to him that as the evidence accumulated this operation was steadily losing ground. He had personally only had experience with two cases, in which he operated himself, one of which died and the other had not been benefitted. In classifying the operations for enlargement of the prostate the prostatectomy proper was spoken of as the truly radical operation and the operation came under the head of those which act upon the circulation of the prostate. If one could determine just how much of the prostatic enlargement and obstruction was due to engorgement of the circulation and how much to fibrotic tissue growth we might be able to better determine the propriety of doing this operation in certain cases. The speaker said that one of his cases, the surviving one, was rather instructive to him in that the man very decidedly improved up to a certain point and beyond that point the operation had been a failure. The prostate was as large as an orange at the time of the operation and a diminution in its size took place immediately after the operation and continued until the prostate reached about one-third of the size it had formerly been. But this shrinkage did not prove to be of any material benefit to the patient in that his subjective symptoms all continued; the irritation remained the same, the only change being that the prostate had reduced in size probably to the point where the engorgement ended and the fibrotic enlargement commenced. It seemed that unless we operate in cases which are entirely due to circulatory engorgement, this operation would prove of little value.

DISCUSSION ON DR. BOLTON'S PAPER

Dr. P. R. BOLTON then read a paper on "The Operative Routes to the Seminal Vesicles." See page 551.

Dr. BLAKE said he agreed with Dr. Bolton in his conclusions that by the posterior route we got a much better exposure. He had not himself operated by the Rydygier incision upon seminal vesicles, but from the facility with which the rectum was reached he should think that the parts beyond could be easily reached also.

He also agreed with him that it seemed poor judgment to try to withdraw the vas deferens from the opening in the groin without exposing it for the whole distance that it was diseased.

Dr. SWINBURNE said he had had no experience in any attempted extirpation of the vesicles but had often thought of the possible necessity for it. As far as the extirpation for gonorrheal seminal vesiculitis was concerned it always seemed to him that drainage by the perineal route would suffice; but where it seemed necessary to extirpate for tuberculosis of course one needed all the daylight on the subject he could get.

In reply Dr. Bolton said that the advantages or the disadvantages of the Rydygier incision in contrast to the Kraske method, which was distinctly a mutilating method, were that the patient after the Rydygier incision always had his packing removed on about the third or fourth day and was out of bed on the fifth day and was commonly healed absolutely inside of three weeks. That was quite different from the natural history of the patient who had been mutilated by this Kraske incision, which absolutely removed the coccyx and the fifth piece of the sacrum and a part of the fourth.

DR. CABOT said he had seen the Kraske operation done by Dr. Fuller on two occasions for the removal of the seminal vesicles and it seemed to be a very satisfactory route in both these cases. One was a longshoreman, who had had vesiculitis for three or four years and a long course of stripping had had no decided effect, and so Dr. Fuller proposed the operation and the patient was suffering so he would have had anything done to relieve his discomfort. The speaker said he thought the patient was laid up for about six weeks and it was well toward a year before he had recovered entirely from the effects of the operation. The pain, which he had suffered continued even after operation, perhaps partly from the operation and from the association, he having had it so long. At the end of a year he had recovered and apparently was in pretty good health. The whole case was handicapped somewhat by the fact that the man was inclined to take a little alcohol and go on frequent spree and got much used up in that way.

The other case was that of a coachman who came to the Post-Graduate for operation with the same history, suffering so from his vesiculitis he could not sit on soft places at all and had those very sharp attacks located in the seminal vesicles and would be laid up for a week or two in bed. In this case Dr. Fuller did this Kraske operation, but unfortunately the patient has disappeared so that the final outcome is unknown, the operation was perfectly successful. The route seemed very satisfactory. These the speaker thought were the only cases in which Dr. Fuller had done the operation.

Selections.

Finsen's Method of Treatment of Lupus.—D. SAVASON (*Deut. Med. Gaz.*, p. 589, 1890).

The Treatment of Lupus with X-Rays.—WACŁAW LAFINSKI (*Gazeta Lekarska*, Vol. XIX., p. 425, 1899).

The Latest Facts Regarding the Question of Action of X-Rays upon Healthy and Diseased Skin:—V. ZARUEIN (*Monat. f. Pr. Derm.*, Vol. 28, p. 489, 1899).

A Case of Dermatitis, Following the Application of X-Rays.—BURI (*Monat. f. Prak. Derm.*, Vol. XXVIII., p. 437, 1899).

A New Treatment of Lupus by Means of an Internal Use of Medicine.—A. PHILLIPSON (*Dermat. Zeitschrift*, Vol. VI., p. 289, 1899).

Observations on Some of the More Recent Methods of Treating Lupus Vulgaris.—T. U. H. MACLEOD (*Brit. Jour. of Derm.*, Vol. XI., p. 341, 1899).

A Contribution to the Therapy of Erythematous Lupus.—BUKOVSKY (*Wien. Med. Wochens.*, p. 1450, 1899).

Cases of Lupus Erythematosus Treated by Scarification, Followed by Immediate Application of Pressure Pads for Several Days.—HERMAN LAWRENCE (*Intercolonial Med. Journal of Australasia*, Vol. IV., p. 259, 1899).

We possess numerous methods of de-roying tissues affected with lupus, and we have at our disposal remedies which exert a selective action on the diseased tissue. We even are able by means of specific injections (tuberculin) to discover hidden foci of the disease. Moreover, we have various remedies which kill the bacilli; the treatment of lupus, nevertheless, is far from being satisfactory. The reason for this lies in the fact that all the foregoing methods and remedies do not fulfil the cardinal requirement of a successful treatment of lupus—namely, the destruction of the disease-producing agent and of the affected tissues when both are located in the deeper tissues of the skin. To Prof. Finsen belongs the honor and credit of discovering such a remedy and of basing his treatment upon this cardinal requirement. Thanks to the liberality of the Danish government, Dr. Finsen was enabled to continue his researches on the action of light upon living tissues and bacteria. Dr. Savanson gives an account of the method used by Finsen in his institute in Copenhagen for the treatment of lupus.

By exact experiments Finsen demonstrated that light greatly concentrated produces a specific irritative action upon the skin. This action is due to the chemical rays, which evoke increased blood circulation, absorbing the diseased tissue. The ultra-violet invisible rays have a great tendency to destroy living bacilli, even to the anthrax bacillus. Furthermore, the researches of Finsen and of Savason demonstrated the possibility of passage of chemical rays through tissue rendered anemic by pressure.

Finsen constructed two pieces of apparatus for sun light and electric light. The first apparatus consisted of glass lenses of 30 cm. in diameter placed in a cylinder, which contains cold water colored blue by sulphate of copper, which excludes the red irritating heat rays, and brings only the germicidal rays alone to bear on the diseased skin. The apparatus for electric light is constructed of lenses of *Bergkrystalle*, which have the property of absorbing heat rays and passing through chemical rays. Owing to the scarcity of large pieces of the mineral, the lenses are only 7 cm. diameter. Two quartz plates fixed by elastic bands or pressed by a nurse upon the skin so as to render it anemic complete the apparatus. On this glass, which in no way interferes with their action, the rays are focussed.

Lapinski gives the history of two female patients suffering with lupus and treated in Hoffy's clinic (Wurzburg) with X-rays. The patients were placed 20 cm. from the tube, the unaffected portions were protected by sheets of lead paper. After two series of sittings the lupoid infiltration of the forehead and nose disappeared, the skin, which was whiter than the surrounding healthy skin, was smooth and easily pinched up. Signs of former disease could be noticed only in the inner eye corners, where the infiltration persisted. Good results were noted in the second case.

Zarubin draws the following conclusions from a careful review of the literature on the subject:

1. The X-rays are of value in dermato-therapy, especially in lupus vulgaris, in chronic eczema, in removing hair in cases of *nevi*, and in some cases of *varicose* ulcers of the legs, in *acne vulgaris*, *erythematosus lupus*, *hypertrichosis*, *psoriasis*, *elephantiasis* and *ephelides*.

2 Sometimes the use of X-rays is followed by dermatitis, alopecia, change of the skin color, pigmentation, and by dryness of the epidermis.

The following case of Buri presents a good illustration of the foregoing statement. An inventor exhibited before the German Naturvorschcr Society his new X-ray apparatus of extraordinary power, producing simultaneously a small quantity of ozone. By means of this apparatus not only the bones but the tissue of the shirt, of the underwear, even the form of the muscles could be distinguished. The inventor during the demonstrations often exposed his left second finger to the action of the rays. On the evening of the fourth day he was taken with severe pain in his heart, combined with a feeling of oppression, and fright. The left hand swelled, reddened, and an itching sensation with pain was felt in the bones of the first phalanx. On the next day the hand was doubly swollen except the place protected by the wedding ring. The pain increased during the following eight days; only on the tenth day the symptoms began to subside, and desquamation of the dorsal aspect of the hand and the palmar surface of the first phalanges took place. The desquamation of the epidermis was sharply defined. Simultaneously, the hair of the affected parts fell out. Some time after the patient noticed that the free end of the left finger-nail was turned toward the skin, the nails becoming brittle, painful near the lunula, and new nails began to appear, separated from the old ones by a transverse line, which was being pushed toward the free end. The transverse line was especially marked on the left second finger, but was visible and perceptible on the third, fourth, and slightly on the fifth finger. The nails of the right fingers only underwent a nutritive change, their lustre and shape being alternately altered. Lately the nail of the large left toe fell off spontaneously and painlessly, without exposing a transverse line. The hair has returned in greater profusion.

Philippson draws the following conclusions from his experience with the fluorids in lupus:

1. Sodium fluorid taken internally exercises a healing action upon lupus.
2. The action upon the stomach is of such a character that the required dose (0.1 grm.) cannot be administered till a cure takes place.
3. Therefore it is advisable to administer the organic fluorin preparation, sodium parafinorbenzoate (Merck), in 0.5 grm. doses three times daily.
4. Even if definite curative results have not been obtained up to the present date, the preparation is worthy of being administered owing to the fact that no aggravations of the process occur during its administration.
5. A trial of the preparation in other tuberculous processes is indicated.

MacLeod, reviewing the more recent methods of treating lupus, comes to the conclusion that not one method is satisfactory. The results obtained by Finster's method can be reached by other simpler methods in the same length of time. Nor does the use of Rontgen-rays exclude relapses. Far better results are obtained from the operative treatment—namely, complete extirpation, with transplantation. Hollander's "hot-air" treatment requires great skill in manipulation, and in the hands of the inexperienced it may do considerable harm. Besides this, the operation is extremely painful, and requires complete general anesthesia. In certain circumscribed lupus patches where the brownish-yellow nodules can be clearly defined with the diascope, the "wood-spicule" method of Unna has been found to be of great service, from its simplicity, its comparative painlessness, and the slight scarring which it causes. And even this method will

be unnecessary if the thyroid-collod treatment should prove to be the success which in some cases it seems to promise.

Bukovsky, giving a critical review of all known methods in use in Janovsky's clinic for treating erythematous lupus, concludes that the best results were obtained from the use of salicylpyrogallic collodium according to Brooke's method. (Ac. Sal., 40; acid pyrogal. 10; Collod. 100.) The irritation produced by the salicylpyrogallic collodium is rarely so intense as to require any subsequent application. Cure follows without pain in an average of sixty days. The time of observation is as yet too short to enable him to arrive at a conclusion as to the value of the method, regarding relapses.

After dividing the skin affected by means of a scarifier into 400 sections to the square inch, india rubber pressure pads were applied for several days in the three cases reported by Lawrence. In all of them the results were satisfactory, as neither disfigurement nor scar formation took place. The author is fully convinced that success cannot be obtained without the proper application of pressure pads. The author used the same methods with good results in keloid and chronic circumscribed eczema.

A Case of Syphilis with Precocious Gummata and Ulceration.—ARTHUR POWELL (*British Journal of Der.*, Vol. XL, '90, p. 311).

The author reports a case of syphilitic infection in a man of 42 years, in whom fifty-two days after the first sign of the chancre, seventy-two or eighty-six days after inoculation, four gummata appeared in the muscles of the calves, a fifth on the dorsum penis and two weeks later a sixth on the foreskin which suppurated and caused a perforation. The woman who infected the patient had such a mild and transient roseola with shallow ulcers on the tonsils, that she felt no inconvenience and was wholly unaware of their existence. The severity of the attack in the man the author ascribes to the dose of the virus received by the patient and to the small resisting power of the patient, which was undermined by malaria, alcoholism and gout.

A Study of the Lesions and Nature of Erythema Induratum.—GEORGES THIÉRIE and PAUL RAVAUT (*Ann. de Dermat. et de Syph.*, Vol. X, 1899, p. 513).

Microscopical examinations of tissues obtained from three cases of the indurated erythema observed by the authors revealed the fact, that in all the three cases the vascular channels were chiefly affected, exhibiting inflammatory and degenerative lesions with the presence of such a number of giant cells, that they alone suggested the tubercular nature of the disease. Although the authors could not demonstrate the presence of the tubercle bacillus in more than fifty specimens examined, they nevertheless regard this affection as tuberculosis, owing to the fact that inoculation from the tissues of one case gave positive results in rabbits.

Anomalous Eruptions in Typhoid Fever.—T. M. DaCOSTA (*The American Journal of Medical Sciences*, 1899, Volume 118, p. 1).

Outside of the characteristic lenticular eruption in typhoid fever, there are rashes which are comparatively rare and become a cause of confusion and error.

Da Costa gives histories of cases in which diffuse erythema simulating scarlet fever and an eruption like that of measles accompanied typhoid. The scarlati-

form eruption is often seen all over the body, more distinct in some places than in others. It is easily influenced by pressure. It has during its week's duration periods of greater or less intensity. It passes away without desquamation and it does not influence the course of the temperature.

The measly rash is very uncommon in typhoid and it greatly differs from true measles co-existing with typhoid. In true measles the rash is coarser, more papular, and has the well-known crescentic arrangement. There is itching and desquamation. But the greatest difference is in the temperature. In the measly eruption of typhoid the eruption has no marked influence on the temperature. In intercurrent measles the temperature rises in the prodromal stage and it goes on rising or remains high with the spreading eruption; sometimes there is in typhoid a mottling of the skin, which according to the author is a different expression of the same pathological condition, namely of the disorder of the cutaneous nerves, due to vasomotor disturbance, the causation of which is very doubtful.

A Study of Pemphigus Foliaceus of Cazenave.—LEREDDE (*Ann. de Derm. et de Syph.*, Vol. X., 1899, p. 601).

The parasitic and nervous theories are very often called in to explain the origin of some skin affections. Both theories have their adherents in this instance. In pemphigus foliaceus, Leredde rejects the parasitic theory as not based upon sufficient bacteriological proofs, and does not accept the nervous theory, because (1) some forms of pemphigus, as pemphigus in the new-born are of parasitic origin, (2) nervous troubles which accompany pemphigus foliaceus are neither constant nor definite, and (3) in these latter are reported autopsies of patients who succumbed to pemphigus, where no nervous lesions were discovered.

Leredde, basing his theory upon two personal cases, ascribes the origin and cause of the disease to changes of the blood. In both cases more than half of the white corpuscles were changed presenting some anomalies without leucocytosis, without very pronounced anemia; there existed a considerable change in the blood elements of both patients, and this change was in evident relation with the skin lesions. Furthermore there was an emigration of eosinophile cells both in the skin and epidermis and eosinophile corpuscles in the blood, and this coincidence can hardly be regarded as occurring by hazard.

The author even considers the changes of the blood as primary leading to changes in the skin, as is shown in Duhring's disease, which is of the same origin and character as pemphigus foliaceus. In the latter, blood changes can be proven without the co-existence of skin lesions, while we cannot demonstrate skin lesions without the co-existence of blood changes. These blood changes are due to some toxin which exercising an influence upon the leucocyto-poietic organs, chiefly the bone marrow, changes the composition of the blood and through it provokes the irritation of the skin.

The Lesion of Molluscum Contagiosum.—CH. AUDRY (*Ann. de Derm. et de Syph.*, Vol. X., 1899, p. 621).

The opinions regarding the origin, seat and character of the foregoing affection vary. The author endeavors to answer the questions, from his histological examinations

The point of departure of the molluscum contagiosum is neither the hair-follicle nor the sebaceous glands but the epidermis, (2) this undergoes a

specific metaplasia; (3) There is no doubt that *molluscum contagiosum* is contagious, but we as yet know nothing about its parasite. New methods are probably necessary in order to bring into view the parasite. Two inoculations into animals gave negative results.

Hereditary Syphilis. Various Malformations. Absence of Nails, Hemophilia, Reinfection and Death.—JULIEN and A. THUVIEN (*Jour. des Mal. Cut. et Syph.*, Vol. XI., 1899, p. 257).

The reported case is unique as regards the total congenital absence of nails on both fingers and toes. In the place of nails there is a depression and a band of longitudinal fibrous tissue. There was no sign of corneal tissue. The father of the patient contracted syphilis six months before marriage, the patient being the first offspring of his father. He is of a feeble constitution with large pigmented areas upon his body. The lower extremities are covered with scars dating from his childhood when he also suffered from some eye trouble. The patient was treated for sclerosis lingualis for ten years. He is hemophilic in high degree.

When 22 years old he contracted syphilis, the chancre appearing five weeks after infected coitus, the eruption six weeks after the appearance of the chancre. The papulopustular outbreak was accompanied with serious symptoms. He exhibited a great intolerance of mercury; salivation, hemorrhagic gingivitis and epistaxis following when mercury was given in a therapeutical dose. He died during treatment from pneumonia complicated with epistaxis.

Psoriasis Vulgaris in Babes and Infants.—T. H. RILLE (*Jour. des Mal. Cut. et Syph.*, Vol. XI., 1899, p. 385).

After reviewing the literature the author gives the history of a baby thirty-eight days old, which was attacked with psoriasis in its sixth day of life. The father of the patient suffered with psoriasis for twenty years and had an active eruption at time of procreation of the child. Three older children of the same father did not exhibit any signs of psoriasis.

Treatment of Syphilis.—HARVEY P. JACK (*The Journal of the Alumni Association of the P. and S.*, Baltimore, Vol. II., 1899, p. 53).

The author's method consists in the withdrawal of from one-half to one pint of blood from the arm by the usual method at intervals of one or two weeks, being replaced at once by twice the quantity removed of a hot normal salt solution in which solution was placed a sufficient quantity of mercury bi-chlorid to make a solution of the strength of $\frac{1}{25000}$. For three days after the treatment the patient is kept in bed, if possible, and forced feeding with milk according to S. Weir Mitchell's plan begun. This plan of treatment was repeated six times in three cases, when they were put upon appropriate treatment, mixed treatment for late cases and protoiodid of biniodid for the early ones. The results obtained were very encouraging.

Impetigo Vulgaris.—P. G. UNNA and FRAU SCHWENTER-TRACHSLER (*Monat. f. pract. Derm.*, Vol. 28, Nos. 5 to 8, 1899).

The work presented by the authors marks a new era in the bacteriological researches of skin affections, due to the group of staphylococci. The various

clinical pictures of skin diseases due to staphylococci which are apparently identical, in reality are due to special staphylococci; a special staphylococcus is found by them for impetigo vulgaris.

The authors give a historical review of the question and conclude that the affection was very often mixed with other forms of impetigo, but it is clinically and histologically different from all other affections, being due to a special micro-organism. Primarily the eruption is a small red point, from which in 12—21 hours a vesicle is developed. The vesicle is transfixd by a lanugo hair and shows an umbilication at the opening of the follicle. The contents of the vesicle are clear and it may end by abortion, but usually after 3—5 days a characteristic yellow-greenish scab is formed, owing to the formation above the primary vesicle of a second crop, concentrically surrounding the hair-follicle and localized superficially under the epidermis. The contents of this vesicle dry up forming the crust. When the crust is removed after some time a red spot remains owing to the dilatation of the superficial and deeper vessels in the region of the crust. In unclean persons purulent or hemorrhagic crusts are often seen.

The impetigo is trans-ferrable from one person to another, occurring in children between the ages of three and ten years, although it appears in grown persons in a milder form. The location is mostly confined to the face, scalp, fingers, dorsal aspects of hands, but it occurs also on the arms, soles, limbs and regions of the knees. It seldom appears upon mucous membranes. The sub-maxillary and neck-glands are usually involved spontaneously, but return to their normal condition with the disappearance of the impetigo. There are no complications during its course; folliculitis, furunculosis or abscesses which occur in impetigo due to ordinary staphylococcus infection are absent. The treatment consists in daily removal of the crust by means of soap and water and application of a zinc-sulphur paste. In looking for the cause of impetigo vulgaris the authors found two cocci, which differ only by their color, a white and a yellow ochre coccus. The microbes were cultivated and inoculations with the cultures upon the skin of children and adults gave results positive. The same coccus was obtained from the inoculated persons. The micro-organisms are somewhat like the staphylococcus pyogenes aureus, but they present differences which enable us to separate the two varieties of cases. The authors give a table in which the clinical histological and bacteriological differences are brought into view.

A Case of Urticaria Pigmentosa.—H. R. G. T. BRONGERSMA (Amsterdam).
(*The British Jour. of Derm.*, Vol. XI., 1899, p. 179).

The case reported has some peculiar clinical features in extensive distribution of the lesions and in the presence of scarring. The scars were superficial and recurred only in the center of the patches and nowhere else on the healthy skin. No ulceration of any sort has ever been observed and the scarring must be considered in connection with the disease itself as a result of retrogressive changes in the macules.

On examining sections of the lesions, the author found a large number of mast cells throughout the whole corium and subcutaneous tissue, especially grouped round the vessels, hair follicles, sweat glands, and ducts. From his own examination and a critical review of the literature of the histology of the lesions, the author advances an explanation as to the formation of the wheals and the

presence of the mast-cells, namely, that some peculiar, probably chemical change has taken place in the protoplasm of those cells which have become transformed into mast cells. The quantity of free mast cell granules found in healthy skin undergo degeneration and acting as toxins are capable of producing the changes in the superficial circulation which give rise to the urticaria.

The mast cells evoked before the formation of the wheal as a result of the rapid edema and after changes coincident with the formation of the wheal, have been swept together from the tissues in the neighborhood. He suggests that urticaria pigmentosa might be described as hypergranulosis urticans pigmentosa.

A Case of Cystic Degeneration of the Kidneys with General Dermatitis Exfoliativa.—G. PARKER. (*The American Journal of Medical Sciences*, Vol. 118, 1899, p. 272).

The combination of these two rare affections is, perhaps, unique, though the presence of generalized skin troubles in kidney disease is not altogether uncommon and leads to a serious prognosis. It has been disputed whether these rashes are uremic in origin, or due to the retention of some irritant without the presence of uremia or whether they are accidental. The history of a case given by the author does not clear the dispute. The patient after an attack of influenza began to feel weak, and two months later had a violent attack of lumbar pain, with drowsiness, passing water at night more often than he had done before, his scalp became full of dandruff and several months later a dry, scaly eruption appeared on a patch of skin on his back and itched a good deal. Shortly after the scaly eruption became universal and the whole body swollen. Albumen in urine later. A considerable diffuse edema of the face and every part of the body and stiff, thickened fingers were noticed. The skin was peeling off everywhere in dry, branny scales, leaving here and there a red denuded surface without any weeping. He was kept in bed on a light diet. The skin improved rapidly, the albumen and edema disappeared. Several days after he suddenly sank into a comatose condition and died.

The post-mortem examination disclosed well marked cystic kidney degeneration. The cysts varied in size up to that of a walnut, some filled with a clear gelatinous and some with reddish-brown, grumous material. The lining membrane of each cyst was well marked.

The author gives a critical review of the prevalent theories of formation of cysts and concludes that we are totally in the dark as to the nature of the poison which originates the changes.

Urticaria Chronica.—KARL KREIBICH (*Arch. f. Derm. and Syph.*, Vol. 48, 1899, p. 163).

Urticaria chronica is characterized by two symptoms, either new urticarial wheals appear for a prolonged period (urticaria recidiva) or the individual wheals remain for a long time (urticaria perstans). The author reports two cases in which the urticarial wheals appeared daily for 11 and 35 years respectively, owing to a chronic functional derangement of the stomach and sexual organs. In this form there is an absence of scratch marks or excoriations, no pigmentation is noticeable and after the disappearance of the urticarial lesion the skin is microscopically unchanged. In another form of urticaria recidiva the primary lesions are usually assorted in groups of small light red or dark wheals, the surface of which gets excoriated owing to the severe itching it is

accompanied with, and the center is covered with a bloody scab. On disappearance of the scab a pigmented spot is left. These cases are called urticaria with pigmentation, in order to differentiate them from urticaria pigmentosa.

These forms often go hand in hand with chronic diseases of kidneys, digestive organs and general disturbances of a psychic nature. The disease is not identical with either erythema papulatum or lichen urticatus.

The typical lesion in urticaria perstans is presented by a hard, round, not very strongly defined, light red persistent papule, which anatomically consists of an infiltration of the cutis by leucocytes (urticaria perstans papulosa). Sometimes the infiltration is associated with a pronounced hyperplasia of the epithelium, and in such cases the surface of the lesion becomes warty (urticaria perstans verrucosa). These lesions do not present any longer any similarity either in color or consistency with urticarial efflorescences. The presence of transitory forms of usual urticarial wheals only enabled the author to arrive at a correct diagnosis in his cases.

The author considers the urticaria pigmentosa as belonging to this type. The most characteristic histological feature is the abundant presence of mast cells. He accepts Kaposi's opinion regarding the rôle of blood in the formation of the pigments, as during the swelling of the lesions not only serum, but coloring matter of the blood is found in the wheals. He gives the history of two cases of urticaria pigmentosa.

[The cases reported under the head of urticaria perstans verrucosa appear to bear close relationship to the one reported by me (JOURNAL, Feb., 1899) under the name "Papular, Persistent Dermatitis."—ED.]

Skin Eruptions Occurring During the Course of Nephritis, with report of five cases.—LINDLEY SCOTT (*The British Journal of Derm.*, Vol. XI., 1899, p. 276).

Of the five cases, reported by the author, four were male and one female, the ages were from sixteen to fifty-four years. There was nothing in their previous history or treatment to lead one to expect a skin eruption. In its early stages the rash took the form of a papular erythema, the papules being at first discrete, showing a disposition to become confluent and surrounded by erythematous areas. It was usually first seen on the anus and chest, and later on tended to involve the legs, abdomen, etc., and become generalized. In about a week the eruption commenced to subside and was followed by desquamation of the affected areas. The uremic manifestations were for the most part of a chronic and mild character, and chiefly of the gastro-intestinal order, nervous phenomena were rare. Out of the five only one recovered. The autopsies in the form showed chronic parenchymatous nephritis in three and acute diffuse nephritis in one. Nearly all the patients suffered from edema. The advent of skin changes was not accompanied by further change in the condition of the urine. The author is of the opinion that the eruptions are not the result of true uremic poisoning, but of reducing substances and proteids.

Therapeutic Reports

This department has been opened for a free discussion of the merits of preparations offered for the use of the profession.

HYRGOLUM (HYDRARGYRUM COLLOIDALE) IN SYPHILIS.

BY DR. LOUIS FRIEDMAN.

Hyrgolum is metallic mercury, in an allotropic form soluble in water, consisting of small, shining crystals of black color.

The best and most practical for the use of inunctions is the colloidal preparation, ungt. hyrgoli in a 10-per-cent. strength.

Ungt. hyrgoli is a thin ointment more or less of blackish-gray color, of not an unpleasant odor, cleaner, more readily absorbable than the gray ointment.

The main and most important feature about it is its nonirritating qualities.

While blue ointment must be used with caution on account of the disagreeable mercurial dermatitis it often produces, ungt. hyrgoli is mild, does not produce any cutaneous irritation, or when it does it is often of a very mild grade, hardly noticeable and quickly disappears. Out of the twenty-four below-mentioned cases, only two showed a slight acne-form eruption, without sensory disturbances, which disappeared in twenty-four hours.

In case No. 3, especially, the use of the blue ointment always produced a very troublesome mercurial dermatitis, while inunction with ungt. hyrgoli was perfectly satisfactory, no irritation whatever appearing.

While blue ointment often produces gingivitis and salivation, in the use of hyrgoli this was not noticed.

Inunction with the ungt. hyrgoli as compared with blue ointment is simpler, easier, more cleanly, less time is required for its absorption, and the clothing is not soiled.

In the following report of cases, the method employed was to give the patient one ounce of a 10-per-cent. ointment, vaseline as a base, which he was ordered to divide into six equal parts, using one part each night for six nights, then the following day he was to take a Turkish bath. This being repeated each week and continued for 2 weeks to 1 month after complete disappearance of the symptoms. After this they were usually put in some pill of mercury, though the majority of cases disappear after the subsidence of their symptoms.

Ample clinical material was at hand, these patients being treated at the Good Samaritan Dispensary. Of the cases treated, 24 remained under observation long enough to report.

CASE 1.—Male, L.; primary sore, April '99. Very severe throat lesions, tonsils enlarged causing painful dysphasia. Mucous patches both upper and lower labia; also on tongue. Macular syphilide present; inguinal, epitrochlia, also mucous glands involved. Alopecia prominent. Headaches and slight fever. After two-weeks' treatment all above symptoms except a few mucous patches disappeared. Patient still under observation.

CASE 2.—B., male, 19 years. Extragenital chancre of upper lip. Infected

March, 1890. Adenopathy prominent, especially submaxillary glands; macular eruption, mucous patches, headache. Very slight acneform eruption on site of inunction lasts 24 hours without disturbance, then disappear. Greatly improved, chancre entirely disappeared.

CASE 3.—M. F., male, 25 years old. Primary sore, July, 1898. Throat lesions severe, larynx involved. In this case all inunction with blue ointment would irritate, while ungt. hyrgoli did not.

CASE 4.—H., 35 years old, male. Chancre 17 years ago. At present gumma of hard palate, severe headaches, greatly improved under treatment.

CASE 5.—G., male, 25 years old. Initial lesion, Sept., 1898. All secondaries. Condylomata later. Greatly improved.

CASE 6.—D. P., 30 years. Initial lesion, Feb., 1899. Throat symptoms only. The first inunction produced a very slight eruption, but none appeared after later inunctions.

CASE 7.—A., male, 27 years. Primary sore, March, 1899. Throat symptoms only. Improved.

CASE 8.—S. P., 25 years, male. Primary lesion in Feb., 1899. Double chancre, all secondaries present. Improved on inunction.

CASE 9.—C. L., male, age 20. Primary, April, 1899. Very bright roscola, and throat lesions; after one-week's rubbing all these disappeared.

CASE 10.—J. C., male, 24 years. Initial lesion, Aug., 1898. Present condition good. Had persistent throat lesions; patient smokes; throat improved under inunctions.

CASE 11.—B. F., male, 23 years. Primary, June, 1898. Mucous patches on palate persistent for 2 months. Psoriasis palmaris. Greatly improved.

CASE 12.—S. L., male, 23 years. Chancre in 1893, all secondaries present at that time. Present condition shows a psoriasisform syphilide on the entire body, which had lasted 3 or 4 months. Condition greatly improved, eruption still under treatment.

CASE 13.—B. L., 25 years. Tertiary lesions on leg. Ulcus cruris. Greatly improved.

CASE 14.—F. A., age 20, male. Primary lesion in 1895. Present state, gumma of hard palate, perforated, also small gumma of skin on arm. Improved.

CASE 15.—S. S., male, 25. Primary lesion in Feb., 1898. All secondaries. Under treatment, cured.

CASE 16.—D., male, 26 years. Primary lesion in Jan., 1899. All secondaries present. Rapid improvement under inunctions.

CASE 17.—W. B., 27 years, male. Primary lesions in Dec., 1898. All secondaries. Inunction produces a slight acneform eruption disappearing in 24 hours.

CASE 18.—L., age 22, male. All secondaries, initial lesion seven months before. Improved.

CASE 19.—J. L., male, age 21. Primary lesion in March, 1899. Throat and mucous patches. Improvement.

CASE 20.—Y., age 25, male. All secondaries, especially enlargement of glands. Improvement.

CASE 21.—J. S., male. Primary lesion in July, 1899. Alopecia marked, glands enlarged, macular eruption. All symptoms improved.

CASE 22.—C. P. Secondary eruption present. Steady improvement under inunctions.

CASE 23.—M., primary sore, July, 1899. macular eruptions which disappeared in one week and there had been no return of eruption since.

CASE 24.—W. F. Initial lesion, May, 1899. Mucous patches severe and persistent, gradually yield under the inunctions.

BLOOD CURES OF ECZEMA.

Cases IX. and X.; By Dr. Simpson, Boston.

Mary K.—, first seen October 3, 1898; American; age 19; eczema of face and neck, had resisted treatment of all kinds for several years. Treated on the surface twice a day with gauze saturated with bovine three parts and ichthyol one part; the surface being washed with borax and water and dried, before each application. When last seen, November 20th, considered herself entirely well, the surfaces being almost perfectly healed.

CASE X.

Edward Casey; American; age 20; eczema of both hands; had received but partial benefit from various treatments. Treatment the same as above, beginning October 8th, and discharged cured December 1st—*From Hand-book of Hematotherapy.*

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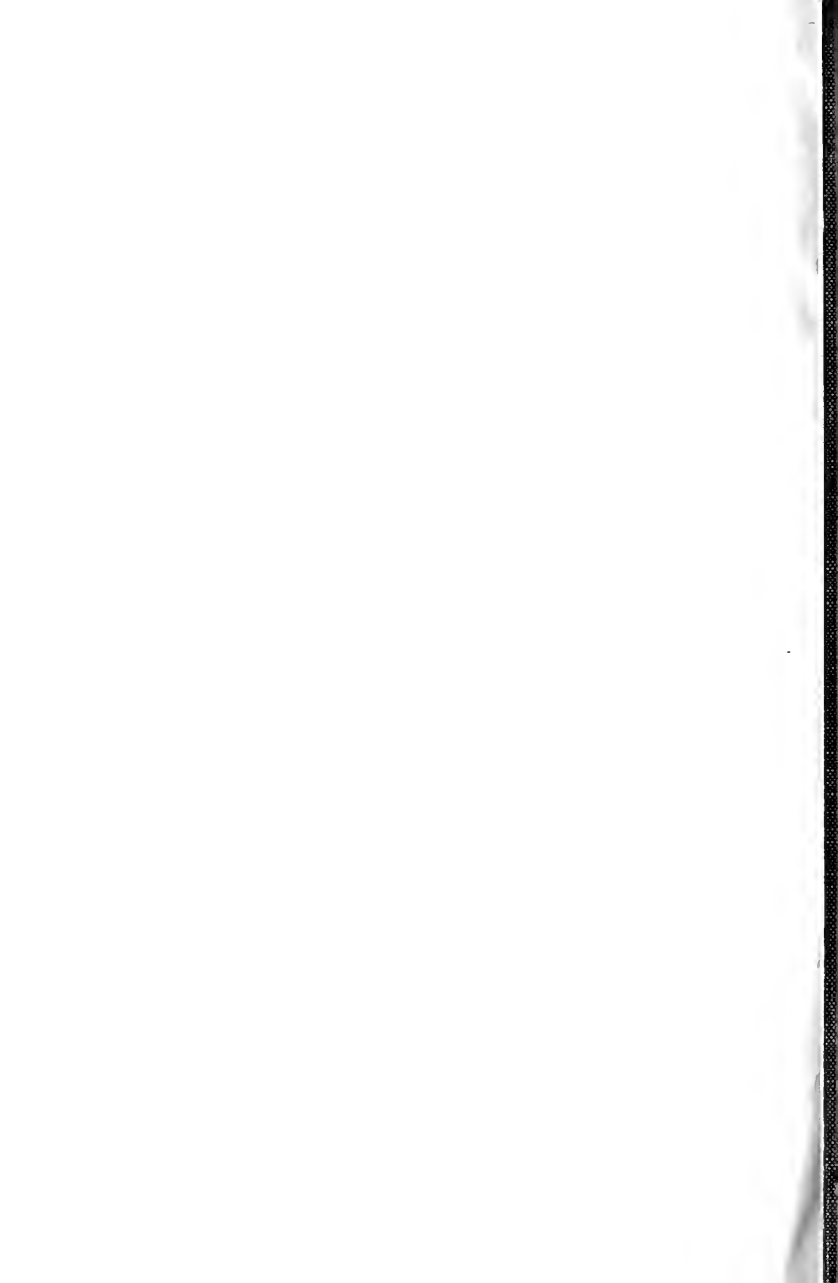
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